

*** NOTICES ***

JPO and INPI are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

DETAILED DESCRIPTION

[Detailed Description of the Invention]**[0001]**

[Field of the Invention]This invention relates to the game machine provided with the display which can display a foreground pattern and a background figure handle.

[0002]

[Description of the Prior Art]Many of pachinko machines which are one of the game machines are provided with the display for indication which can display a foreground pattern and a background figure handle. The special pattern etc. which perform change and a stop, for example correspond to a foreground pattern. A background figure handle is a pattern for an ornament displayed on the background side of a foreground pattern, for example, a character etc. correspond. As for a left-hand side and inside side, the special pattern as a foreground pattern is displayed in three right-hand side variable regions, for example. If a game ball wins a prize of predetermined regions (for example, a start opening, a gate, etc.) or it passes, the special pattern concerned will begin change and will suspend it after that. According to a variation pattern, it changes after starting change (it calls the following "pattern fluctuation") of the pattern group concerning a special pattern until it stops, and two or more display patterns are usually prepared by one set of a pachinko machine. According to a random number etc., it is determined according to which variation pattern it changes.

[0003]Some of the conventional pachinko machines were provided with the display for indication which can usually display a pattern other than the above-mentioned special pattern as a foreground pattern. When the pachinko ball won a prize of a start opening, it was begun to change the special pattern displayed on the center section of the display for indication in the pachinko machine concerned, and when it stopped by the big hit pattern (for example, pattern "777") after that, it performed big hit games. Similarly, the pattern usually opened temporarily the opening and closing member (what is called a tulip) which is displayed on the left lower quadrant of the display for indication concerned and with which the start opening was equipped, when it began to change it when the pachinko ball passed through the gate, and it hit after that and stopped in the pattern (for example, pattern "7").

[0004]

[Problem to be solved by the invention]However, in the conventional pachinko machine, the pattern was only usually displayed on the only same display for indication as the special pattern as a foreground pattern, and any relation was not given, either. It was usually only a pattern among foreground patterns that are not giving any relation about a foreground pattern and a background figure handle, either, and a game person moreover expects a privilege with the special pattern. This invention is made in view of such a point, and is enabling it to play a game with the hope which a game person expects that a privilege is not only about a foreground pattern but about a background figure handle.

[0005]

[The means for solving a technical problem 1] The means for solving a technical problem 1 is as having indicated to Claim 1. Here, about the term indicated to Claim 1, it interprets as follows. The same can be said for the claim of others [interpretation / concerned], and the detailed description of the invention:

(1) "1st lottery" and the "2nd lottery" may be offered by the almost same lottery, and may be offered by different lottery.

(2) It is all the patterns which can be displayed on "foreground pattern" at a display, and the patterns (usually pattern [A specified pattern and a special pattern] etc.) used for a lottery are included. For example, animations, such as Still Picture Sub-Division, such as not only patterns, such as characters (an alphanumeric character, a Chinese character, the Japanese syllabary, etc.), a figure, a sign, and a pattern, but scenery, a pattern, a character, and animation, or an image corresponds. It may be only one more kind of pattern, and two or more kinds of patterns may be combined arbitrarily.

(3) "located back" means being in the position which looks visual to the backside. For example, when two or more patterns are superimposed and displayed and three dimensional space is displayed in two dimensions in the case where the pattern on the backside can be recognized, an oblique-projection drawing technique, perspective, etc., the case where the pattern on the backside can be recognized from the physical relationship of a pattern etc. correspond.

(4) "background figure handle" can use the pattern used in a foreground pattern except for the point of being located behind a foreground pattern, and the same pattern including a prescribed pattern. In the field in which a foreground pattern is not displayed, a background figure handle may be similarly displayed as a foreground pattern. The number of patterns used with a foreground pattern and a background figure handle, a kind, a display position, etc. may be almost the same, and may differ from each other.

(5) "display" may be all of the parts which can display a pattern about the display for indication (or display device) of 1, and may be a part of part concerned. It may constitute not only from the display for indication of further 1 but from two or more displays for indication.

(6) Not only a perfect stop but a halt is included in "stop." Not only when standing it still, but the case where a reference position is moved by arbitrary range scales in the directions arbitrary as a center is included in the state of a "stop."

(7) "privilege" means a game position advantageous to a game person, for example, there are kinds, such as big hit games, reduction of working hours (mode which shortens the fluctuation period of a pattern group), a probability variation (mode which changes the probability which is becoming it a great success). The privilege concerned may fix a kind in a game and may change a kind to a certain timing. The relation between "the 1st privilege" and the "2nd privilege" may be the same privilege, and may be a different privilege.

[0006]According to the means 1 concerned, a game control part will give a game person the 1st privilege, if the foreground pattern currently changed by the 1st lottery stops by a specified pattern, and if the background figure handle currently changed by the 2nd lottery stops by a prescribed pattern, it will give a game person the 2nd privilege. Therefore, the game person can play a game with the hope which expects a privilege not only about a foreground pattern but about a background figure handle.

[0007]

[The means for solving a technical problem 2] The means for solving a technical problem 2 is as having indicated to Claim 2. According to the means 2 concerned, the 1st privilege and the 2nd privilege were especially made into the same kind. Since the kind same about both a foreground pattern and a background figure handle of privilege is given, a game can be played with the hope which expects the privilege as for which a game person crawls, and which is given with at least one [a gap or] pattern.

[0008]

[The means for solving a technical problem 3] The means for solving a technical problem 3 is as having indicated to Claim 3. According to the means 3 concerned, if the background figure handle which will suspend change of a background figure handle after the stop concerned, or will be changed if the foreground pattern currently changed stops in patterns other than a specified pattern stops in patterns other than a prescribed pattern, change of a foreground pattern will be suspended after the stop concerned. If it carries out like this, even if a foreground pattern and one pattern of the background figure handles will stop a game person and a privilege will not be given, a privilege may be given if the pattern of the other stops. Therefore, the game person can play a game with the hope which expects the privilege given by at least one side of the 1st privilege and the 2nd privilege.

[0009]

[The means for solving a technical problem 4] The means for solving a technical problem 4 is as having indicated to Claim 4. If the foreground pattern and background figure handle which are changed stop in the combination of a specified pattern according to the means 4 concerned, a game control part will give a game person a privilege. Therefore, the game person can play a game with the hope which expects the privilege given with the combination of a foreground pattern and a background figure handle.

[0010]

[The means for solving a technical problem 5] The means for solving a technical problem 5 is as having indicated to Claim 5. Here, a part of the case of a foreground pattern and a background figure handle where all are overlapped mostly, and foreground pattern and background figure handle may be overlapped "to superimpose a foreground pattern and a background figure handle". [of the term indicated to Claim 5] The same can be said for the claim of others [interpretation / concerned], and the detailed description of the invention.

[0011]According to the means 5 concerned, a foreground pattern and a background figure handle are superimposed and displayed on a display. If the part (field) displayed by superimposing is seen, it understands whether it became a foreground pattern and a pattern which can give a privilege with a background figure handle, respectively at this time. Therefore, the game person can distinguish easily whether a privilege is given or not only by seeing the part concerned.

[0012]

[Mode for carrying out the invention]Hereafter, the embodiment in this invention is described based on Drawings.

[Embodiment 1] Embodiment 1 is the example which applied this invention to the 1st sort pachinko machine which is one of the game machines, and a foreground pattern and a background figure handle are modes which give a game person a privilege independently. This Embodiment 1 is described referring to drawing 1 – drawing 14.

[0013]It explains referring to drawing 1 in which the outline of this invention was shown typically first. The game machine shown in drawing 1 has the display control part 4 grade which can display a foreground pattern and a background figure handle on the display 6 in response to the game control part 2 which will output the display command which orders it a necessary display, and will give a game person a privilege if necessary conditions are satisfied, and the outputted display command. A foreground pattern is usually made into the pattern 6a, and the background figure handle usually used behind the pattern 6a is made into the special pattern 6b. In order to explain simply here, the pattern 6a is usually made into the pattern of only a number, and the special pattern 6b is made into the pattern of only a pattern. "Necessary conditions" means appropriately the conditions which can be set up according to the kind of game machine, time, a game position, etc., and is the same as that of the following. For example, the thing which a game ball wins a prize or passes to a predetermined region when the number of reserved balls reaches upper limit among high probabilities and reduction of working hours (what is called inside of full), The time of the fixed time

in big hit games and after the end of big hit games and opening and closing members (movable wing pieces, such as a lid of a prize port, a shuttlecock, what is called a tulip etc.) being open, etc. correspond. It may fix in a game and the necessary conditions concerned may be changed to a certain timing.

[0014]The foreground pattern and background figure handle which are displayed on the display 6 by the image editing which the display control part 4 performs are as follows, for example, namely, — not becoming a pattern "555" of the Zorro eye eventually, although it usually began to change the pattern 6a and the special pattern 6b and usually reached in the pattern "5" on the upper row horizontal line of the pattern 6a at reach — "blank" *****. Then, reach is reached in the pattern which consists of a dissemination pattern of an inverse triangle (namely, form of "**") on the middle horizontal line of the special pattern 6b, and, also eventually, it is "becoming it a great success" in the pattern of the pattern concerned. When it usually becomes a "blank" in the pattern 6a, it is not always "becoming it a great success" by the special pattern 6b, and becomes a "blank" in comparatively many cases. At this time, the game control part 2 begins big hit games, and gives a game person the 2nd privilege. Similarly, if the pattern 6a usually becomes a hit in the pattern "555" of for example, the Zorro eye, the game control part 2 will begin a hit game, and will give a game person the 1st privilege. Thus, the 1st privilege may usually be given with the pattern 6a as a foreground pattern, and the 2nd privilege may be given to a game person by the special pattern 6b as a background figure handle. Even if the 1st privilege and the 2nd privilege may have a kind, same size, etc. and it is [either] small, one may differ. Therefore, the game person can play a game with the hope which expects a privilege not only about a foreground pattern but about a background figure handle, i.e., both patterns.

[0015]Here, the mode of the foreground pattern (usually pattern 6a) shown below and a background figure handle (special pattern 6b) is also realizable. Even if it is these modes, the game person can play a game with the hope that a privilege may be able to be acquired.

(1) Although the foreground pattern was usually made into the pattern 6a and the background figure handle was made into the special pattern 6b, it is good also considering [both] a foreground pattern and a background figure handle as the special pattern 6b. If it carries out like this, even if it shifts, by the special pattern 6b as a foreground pattern, it may be becoming it a great success with the foreground pattern as a background figure handle. This is the same, when it was alike also in the foreground pattern and the background figure handle and was usually considered as the pattern 6a, or even when it makes a foreground pattern into the special pattern 6b and a background figure handle is usually made into the pattern 6a. Therefore, the opportunity for a game person to acquire the privilege by great success etc. since 2 times of chances are given increases.

(2) When the combination of a foreground pattern and a background figure handle turns into combination of a specified pattern, it may constitute so that a privilege may be given to a game person. Each of foreground patterns at this time and background figure handles may usually be the patterns 6a, and may be the special patterns 6b. Therefore, the game person can play a game with the hope that a privilege may be able to be acquired, with the combination of a foreground pattern and a background figure handle.

(3) when a foreground pattern and a background figure handle are superimposed and displayed (namely, — you make it pile each other up), if the part (or field) displayed by superimposing is seen, understand whether it became the combination of the specified pattern easily. Therefore, the game person can distinguish easily whether a privilege is given or not only by seeing the part concerned. If a foreground pattern and a background figure handle are superimposed and displayed, a viewing area can be made small and the display 6 can be made small by extension. In the viewing area of a limited area (namely, prescribed area), each pattern can be displayed greatly or the number of patterns can be increased.

[0016]Next, the example which applied this invention to the 1st sort pachinko machine provided with what is called an attacker with the 3rd type start opening is explained, referring to drawing 2 —

drawing 10. Drawing 2 shows the appearance of the pachinko machine 10 with a front view. On the game board surface 12 of the pachinko machine 10 shown in drawing 2, By the pattern fluctuation start opening 66 corresponding to the complex device 14 which has the pattern display 22 and reserved ball lamp 20 grade so that it may mention later, and the necessary conditions which start pattern fluctuation, and the solenoid 54. The big prize port 56, the common electric accessory 62 which can open and close a movable wing piece (what is called a tulip), the accessory apparatus 24 which has the solid of revolution 26 and big prize port 32 grade so that it may mention later, other general prize ports and windmills, a nail, etc. which can open and close the lid 72 are arranged suitably.

[0017]The complex device 14 has the pattern display 22 grade which can display the reserved ball lamp 20 which displays the number of a pachinko ball which passed the pattern fluctuation start opening 66 during pattern fluctuation, and a foreground pattern and a background figure handle. The reserved ball lamp 20 has two or more photogens (for example, four LED). On these Descriptions, the number which can be recognized by the display of the reserved ball lamp 20 concerned is only called "the number of reserved balls" below. The pattern display 22 equivalent to the display 6 displays the special pattern, common pattern, and ornament pattern etc. which consist of patterns, such as a character, a sign, a mark, a pattern, a figure, and an image, as a foreground pattern or a background figure handle using a liquid crystal display. If a pachinko ball wins a prize of the pattern fluctuation start opening 66, it is begun to change the special pattern displayed on this pattern display 22, and it stops after specified time elapse. Although the liquid crystal display was used as the pattern display 22, what kind of display for indication which can display a pattern may be used like CRT, a LED display device, a plasma display, and a rotating-drum type display for indication. Although the pattern display 22 of 1 was used also [display / of a special pattern, a common pattern, etc.], it may display with a separate display for indication.

[0018]The pattern fluctuation start opening 66 has the start opening sensor 64 which detects the pachinko ball which won a prize and outputs a detecting signal. Therefore, in the pachinko machine 10, when a pachinko ball wins a prize of the pattern fluctuation start opening 66, necessary conditions will be satisfied. V zone sensor by which the big prize port 56 will become continuable within the number of times of necessary (for example, 16 times) about a big-hit-games state if a pachinko ball other than the above-mentioned lid 72 wins a prize within the 1st opening period (for example, for 20 seconds) — awarded balls are only paid out — it usually has a prize port etc. In order to detect the pachinko ball which won a prize, in the above-mentioned V zone sensor, it has V zone sensor 70, and has the prize sensor 74 in the above-mentioned common prize port, respectively. The pattern fluctuation start opening 66 will pay out awarded balls like the usual prize port, if a pachinko ball wins a prize.

[0019]The electric accessory 62 usually has the solenoid 60 which opens and closes the above-mentioned movable wing piece, and the specific region sensor 58 grade which detects the pachinko ball which won a prize and outputs a detecting signal. Therefore, in the pachinko machine 10, it means that it had won a prize in the specific region that a pachinko ball usually wins a prize of the electric accessory 62 (or passage). The solid of revolution 26 which the accessory apparatus 24 is also called "an attacker with the 3rd type start opening", and has a crevice which can convey a pachinko ball. The solid of revolution 26 by the motor 28 rotated with the degree of about 1 constant speed, and the solid of revolution 26. It has the prize sensor 30 which detects the pachinko ball which was conveyed and won a prize, and outputs a detecting signal, and prize sensor which detects big prize port [which can open and close the lid 34] 32, and pachinko ball which won a prize of the big prize port 32, and outputs detecting signal by solenoid 76 36 grade. The crevice with which the above-mentioned solid of revolution 26 was equipped is equivalent to the 3rd type start opening, and detects the pachinko ball which won a prize of the 3rd type start opening concerned with the prize sensor 30. It may connect directly between the solid of revolution 26 and the motor 28, and it may be indirectly connected by torque transmission members, such as a gear

and a link. Although the motor 28 uses a servo motor, other motors, such as a pulse motor, may be used.

[0020]The manual operation button 50 (final controlling element) in which a game person performs necessary operation in the lower part of the game board surface 12 to the pachinko machine 10. The lower dish 46 which stores temporarily the pachinko ball containing awarded balls, It has the handle 42 provided with the ash pan 48 into which the cigarette end of tobacco, etc. are put, and the touch sensor 44 which detects whether the game person's hand is touching, the loudspeaker 52 which provides in the inside of the top plate 40 which is a saucer of awarded balls, and makes sounds (a sound effect, music, etc.), etc. It has the lamps 16 which consist of a photogen arranged at the suitable position according to the frame opening sensor 38 which detects opening of the glass frame 18 (it is also called a "metal flask" to others), the game content of the pachinko machine 10, etc.

[0021]Next, the main control substrate 100 which realizes the pachinko game by the pachinko machine 10, It explains referring to drawing 3 in which these outline composition was shown for the display control board 200 which displays a pattern on the pattern display 22 in response to the display command (for example, command block) sent from the main control substrate 100. These main control substrates 100 and display control boards 200 are provided in the back side of the pachinko machine 10. The main control substrate 100 which is equivalent to the game control part 2 in drawing 3 is constituted focusing on CPU(processor) 110, A game control program and necessary game data. (For example, a great success value) etc. ROM112, various kinds of random numbers, data, an input output signal, etc. to store. RAM114 to store and the signal sent from various kinds of input devices. The input processing circuit 102 which is received and is changed into the data format which can be processed within the main control substrate 100, the output processing circuit 104 which operates various kinds of output units in response to the operation data sent from CPU110, and the indicative data sent from CPU110. It has the display control circuit 106 which wins popularity and displays various kinds of display objects suitably (lighting and blink are included), and communication control circuit to which necessary data is sent to display control board 200 116 grade. Each of these components is mutually combined with the bus 118.

[0022]Although CPU110 executes the game control program stored in ROM112 and the game by the pachinko machine 10 is realized, the program for realizing start opening processing etc. which are mentioned later is also included in the game control program concerned. Although DRAM is used for RAM114 ROM112 using EPROM, the memory of other type may be used. There are EEPROM, SRAM, a flash memory, etc. as a memory of other type. As an input device with which the input processing circuit 102 receives a detecting signal etc., there are the manual operation button 50, a prize detection sensor (the start opening sensor 64, V zone sensor 70, prize sensor 74 grade), or other sensors (the frame opening sensor 38 and touch sensor 44 grade), for example. As an output unit with which the output processing circuit 104 outputs a signal, there are the solenoids 54 and 60 and 76 grades, for example. As a display object in which the display control circuit 106 carries out display control, there are the lamps 16 and reserved ball lamp 20 grade, for example. The communication control circuit 116 can send necessary data also to a frame control board, a hall computer, etc. which are not illustrated further if needed.

[0023]Next, the display control board 200 equivalent to the display control part 4 is constituted focusing on CPU210, a display control program and a necessary indicative data (for example, the display information corresponding to a display command.) A blank variation pattern. Two or more variation patterns, two or more reach patterns, etc. which are included. ROM202, a display command, display information, an input output signal, etc. to store. The pattern processed into the pattern display 22 in response to RAM204 to store, the communication control circuit 206 which receives and carries out the data sent from the main control substrate 100, the character generator 212 which memorizes a necessary pattern and is generated in response to instructions, and the display information sent from CPU210. It has the VDP(Video Display Processor)214 grade to display.

Each of these components is mutually combined with the bus 208.

[0024]Although CPU210 executes the display control program stored in ROM202 and a pattern is displayed on the pattern display 22, the program for realizing pattern display processing etc. which are mentioned later is also included in the display control program concerned. Although ROM202 uses DRAM for RAM204 using EPROM, it may use the memory of the above-mentioned other type. The communication control circuit 206 can send necessary data also to a frame control board, a hall computer, etc. which are not illustrated further if needed. As pattern data which the character generator 212 generates, there are characters (an alphanumeric character, a Chinese character, etc.), patterns (special pattern, usually a pattern, an ornament pattern, etc.), Still Picture Sub-Division, animations (animation etc.), an image, etc., for example. VDP214 which has VRAM, palette RAM, etc., The pattern data which the character generator 212 generated in response to display information is read, and after performing image editings, such as color scheme specification and sprite processing, and developing pattern data to VRAM or palette RAM, a video signal, a synchronized signal, etc. are eventually outputted to the pattern display 22. The sprite function realized by performing sprite processing at this time enables it to usually fluctuate not only a pattern but the special pattern as a background figure handle simultaneous or un-simultaneous as a foreground pattern.

[0025]About the frame control board which controls the operation of a various device in response to the command signal sent from the main control substrate 100, or other substrates, since it is not connected with the summary of this invention, a graphic display and explanation are omitted. The expenditure equipment etc. which pay out a pachinko ball for the launcher which will discharge a pachinko ball as the above-mentioned various device if the handle 42 is operated, for example, a ball loan, or awarded balls correspond.

[0026]It explains in the pachinko machine 10 constituted as mentioned above, referring to drawing 4 – drawing 8 for the procedure performed by the main control substrate 100 or the display control board 200, in order to realize this invention. The contents of the pattern fluctuation processing of the contents of the start opening processing to drawing 4 to drawing 5 — drawing 6 — usually — a flow chart shows the contents of the fluctuation displaying processing for patterns, the contents of the fluctuation displaying processing for special patterns, and the contents of privilege executive operation to drawing 7 at drawing 8, respectively. The processings (for example, start opening processing, pattern fluctuation processing, etc.) except pattern display processing among such procedure, CPU110 executes the game control program stored in ROM112 in the main control substrate 100 shown in drawing 3 to suitable timing (for example, cycle in every 4 milliseconds), and all are realized. In the display control board 200, to suitable timing, CPU210 and VDP214 execute a program and realize pattern display processing. As for a foreground pattern (for example, usually pattern) and a background figure handle (for example, special pattern), in the following explanation, a suitable pattern shall be displayed on the pattern display 22 by each to suitable timing according to a game position etc. Although "it adds" means that only 1 usually increases the number of reserved balls, etc., the case where it increases two or more [every] suitably according to a game position etc. is included. On the other hand, it is the same as that of the case where it adds except for the point of reducing the number of the reserved balls "to subtract", etc.

[0027]The start opening processing shown in drawing 4 realizes winning-a-prize distinction of a pachinko ball to the pattern fluctuation start opening 66. First, it is distinguished whether the pachinko ball won a prize of the pattern fluctuation start opening 66. [Step S10]. If a detecting signal is specifically received from the start opening sensor 64 shown in drawing 2 and drawing 3 — having won a prize (YES) — it distinguishes and distinguishes from (NO) which has not won a prize if the detecting signal concerned is not received. If a pachinko ball wins a prize of the pattern fluctuation start opening 66, it will be distinguished whether the number of reserved balls reached upper limit (being a full state for example, four pieces). [Step S12]. If the number of reserved balls has not reached upper limit, (NO) and its number of reserved balls are added. [Step S14]. LED of the

reserved ball lamp 20 is turned on according to the added number of reserved balls. Then, it is a deal about reading and memory of various random numbers. [Step S16] Start opening processing is ended. When the pachinko ball has not won a prize of the pattern fluctuation start opening 66 (NO of Step S10), or when the number of reserved balls reaches upper limit (YES of Step S12), start opening processing is ended as it is.

[0028] The random number related to a pattern and the random number related to a special pattern are usually one of the various random numbers which are read at the above-mentioned step S16, and are memorized to RAM114. Random number RA for success decisions usually used as a random number related to a pattern in order to distinguish whether it is a hit, for example. The random number RB for hit patterns used since [which is displayed on the pattern display 22 when distinguished from a hit by the random number RA for success decisions] a pattern is usually specified. There are common reach pattern random number RC etc. which are used since [concerned] a display pattern after usually becoming reach in a pattern until it suspends change is specified. Random number RD for a great success judging used as a random number related to a special pattern in order to distinguish whether it is great success, for example. The random number RE for big hit patterns used since the special pattern displayed on the pattern display 22 is specified when distinguished from great success by the random number RD for a great success judging. There are random number RG for probability variations etc. which are used in order to distinguish whether a probability variation is performed after becoming special reach pattern random number RF used since a display pattern after becoming reach by the special pattern concerned until it suspends change is specified, and great success.

[0029] The pattern fluctuation processing shown in drawing 5 realizes pattern fluctuation displayed by the pattern display 22. It is distinguished first whether the number of reserved balls is a positive number (that is, number of reserved balls >0 is filled). [Step S20] When the number of reserved balls is a positive number, the number of reserved balls is subtracted in preparation for processing of (YES) and next time. [Step S22] LED of the reserved ball lamp 20 is turned on according to the number of reserved balls subtracted at this time. And fluctuation displaying processing for patterns is usually performed. [Step S24] These contents with usually concrete fluctuation displaying processing for patterns are explained referring to drawing 6.

[0030] The fluctuation displaying processing for common patterns shown in drawing 6 is equivalent to the 1st lottery, and a display after usually starting change of a pattern until it stops is realized. It is reading about random number RA for success decisions first memorized at Step S16 of drawing 4. [Step S40] It is distinguished by whether the random number RA for success decisions concerned hit, and it was in agreement with the value whether it is "a hit." [Step S42] Although a hit value is one piece in a normal state, the proper number may be fluctuated according to a game position (for example, probability variation) etc. It is reading about the random number RB for hit patterns similarly memorized at Step S16 if it "hit" Became (YES). [Step S44] The common pattern which is due to be decided eventually based on the value of the random number RB for hit patterns concerned is determined. And change is usually started for a pattern almost simultaneous with a special pattern. [Step S46] Change of a pattern is usually started and reach processing is performed after a while. [Step S48] Although reach processing which usually starts a pattern is usually performed based on reach pattern random number RC, since the contents of processing are the same as the contents of the reach processing concerning the special pattern mentioned later almost, a graphic display and explanation are omitted. In this way, after finishing reach processing, the fluctuation displaying processing for patterns is also usually ended.

[0031] It is reading from RAM114 about the blank pattern data usually for [if it "blank" becomes by distinction of Step S42 on the other hand, in order to display (NO) and a blank pattern on the pattern display 22] patterns. [Step S50] It is distinguished whether a reach pattern is included in the blank pattern concerned. [Step S52] The combination of the Fig. 1 handle (for example, left figures) and the Fig. 2 handle (for example, right figures) corresponds, and a reach pattern allots the

same pattern (what is called a Zorro eye) in many pachinko machines 10. Supposing it includes a reach pattern (YES), change will usually be started for a pattern almost simultaneous with a special pattern. [Step S46] Although it becomes a "blank" eventually, since it becomes reach on the way, reach processing is performed. [Step S48] In this way, after finishing reach processing, the fluctuation displaying processing for patterns is also usually ended. If a reach pattern is not included by distinction of Step S52, change is usually started for a pattern almost simultaneous with a special pattern like (NO) and Step S46. [Step S54] After usually separating from the pattern and making it stop in a pattern [Step S56] The fluctuation displaying processing for patterns is usually ended. In the above-mentioned step S46, S48, and S54, a display command corresponding, respectively is sent to the display control board 200, and pattern fluctuation of a pattern is usually realized.

[0032] After usually finishing the fluctuation displaying processing for patterns, it returns to drawing 5 and it is distinguished whether it is a hit. [Step S26] With the reliable pachinko machine 10, it is distinguished whether it is a "hit" based on the above-mentioned random number RA for success decisions that it is hard to be influenced by an extraneous noise etc. Actually having been displayed on the pattern display 22 if needed may distinguish whether it is a hit by whether for a pattern to usually hit at and to be in agreement with a pattern. After [which will be later mentioned if it "hit" becomes (YES)] usually making a privilege flag one in preparation for privilege executive operation [Step S28] Fluctuation displaying processing for special patterns is performed. [Step S30] On the other hand, if it "blank" Becomes by distinction of Step S26, fluctuation displaying processing for special patterns of (NO) present state step S30 will be performed. The concrete contents of this fluctuation displaying processing for special patterns are explained referring to drawing 7.

[0033] The fluctuation displaying processing for special patterns shown in drawing 7 is equivalent to the 2nd lottery, and a display after starting change of a special pattern until it stops is realized. It is reading about random number RD for a great success judging first memorized at Step S16 of drawing 4. [Step S60] It is distinguished by whether the random number RD for a great success judging concerned was in agreement with the great success value whether it is "great success." [Step S62] Although a great success value is one piece in a normal state, the proper number may be fluctuated according to a game position (for example, probability variation) etc. It is reading about the random number RE for big hit patterns similarly memorized at Step S16 if it "great success" Became (YES). [Step S64] The special pattern which is due to be decided eventually based on the value of the random number RE for big hit patterns concerned is determined. And reach processing is performed about a special pattern. [Step S66] This reach processing is the same as that of a common pachinko machine, for example, a reach pattern is determined according to a necessary data table etc. based on special reach pattern random number RF memorized at Step S16 of drawing 4, and the special pattern which is [which was determined at the above-mentioned step S64] due to be decided eventually. And according to the determined reach pattern, a display command is sent to the display control board 200, and pattern fluctuation after reach is realized.

[0034] The above-mentioned reach pattern is a pattern for realizing the display of pattern fluctuation, animation (ornament pattern), etc. Complete diagram handle change etc. of the mode changed while synchronizing usual change of the mode which rotates a reel, right reverse change of the mode shaken and moved to an arbitrary direction centering on the specified position on a screen, and a complete diagram handle (left figures, middle figures, right figures) are in the pattern fluctuation concerned. When changing in two or more variable regions, respectively, fluctuation velocity, the changing direction and the stopping times, turn, etc. under change are included in the variation pattern which realizes pattern fluctuation. Although the reach pattern which combined the Fig. 1 handle (for example, left figures) and the Fig. 2 handle (for example, right figures) is displayed on the pattern display 22, it may display on other display for indication and its both. Since a reach pattern etc. will be displayed also on displays for indication other than pattern display 22 if it carries out like this, it becomes easy to recognize what a reach pattern is. When displaying a reach pattern,

a game person may be told about having reached reach further. For example, a character, predetermined animation, etc. of "reach" are displayed, a sound and a specific sound effect are taken out from the loudspeaker 52, and there is a mode of vibrating the chair in which the handle 42 which a game person touches, and a game person sit down. If it carries out like this, the game person can recognize having reached reach more certainly.

[0035] If it "blank" Becomes by distinction of Step S62, in order to display (NO) and a blank pattern on the pattern display 22 on the other hand, after reading the blank pattern data for special patterns from RAM114 [Step S80] It is distinguished whether a reach pattern is included in the blank pattern concerned. [Step S82] .The reach pattern is usually the same as that of the case of a pattern except for the point that patterns differ. Supposing it includes a reach pattern (YES), although it becomes a "blank" eventually, since it becomes reach on the way, it will progress to the above-mentioned step S66. On the other hand, if a reach pattern is not included by distinction of Step S82, it stops in (NO) and a blank pattern. [Step S84] It progresses to the below-mentioned step S70.

[0036] After finishing reach processing, it is distinguished whether it is a probability variation. [Step S68] It distinguishes by whether random number RG for probability variations memorized at Step S16 of drawing 4 was specifically in agreement with the specified value. When it distinguishes from a probability variation, after performing (YES) and probability variation processing [Step S70]

Fluctuation displaying processing is ended. About the contents of probability variation processing, since it is well-known, a graphic display and explanation are omitted. If the probability variation processing concerned is performed, the probability which stops by a big hit pattern and is becoming it a great success after change will increase, and the pattern fluctuation period of a special pattern will be shortened until it becomes next great success after this end of big hit games. The probability which hits after change, stops in a pattern and becomes a hit increases, and the pattern fluctuation period of a pattern is usually shortened. On the other hand, when it does not distinguish from a probability variation, the fluctuation displaying processing for (NO which is Step S68) present state special patterns is ended. In the above-mentioned step S66, S70, and S84, a display command corresponding, respectively is sent to the display control board 200, and pattern fluctuation etc. are realized.

[0037] After finishing the fluctuation displaying processing for special patterns, it returns to drawing 5 again and it is distinguished whether it is great success. [Step S32] .With the reliable pachinko machine 10, it is distinguished whether it is "great success" based on random number RD for a great success judging that it is hard to be influenced by an extraneous noise etc. The special pattern actually displayed on the pattern display 22 if needed may distinguish whether it is great success by whether it is in agreement with a big hit pattern. It is a preparation to the special privilege executive operation which will make a privilege flag one and will mention it later specially if it "great success" Becomes (YES). [Step S34] Pattern fluctuation processing is ended. if it "blank" becomes by distinction of Step S32 on the other hand — (NO) — pattern fluctuation processing is ended as it is.

[0038] Next, the contents of the processing which gives a game person a privilege are explained, referring to drawing 8. At drawing 8 (A), processing corresponding to the hit with a pattern is usually performed, and processing corresponding to great success by a special pattern is performed by drawing 8 (B).

[0039] In the common privilege executive operation of drawing 8 (A), ON and OFF of a privilege flag is usually distinguished first. [Step S90] When a privilege flag usually hits, it is set as one at Step S28 of drawing 5. If a privilege flag is usually one (YES), after usually turning OFF a privilege flag in preparation for the processing on and after next time [Step S92] The solenoid 60 is operated and only a prescribed period (for example, for 3 seconds) usually opens the movable wing piece of the electric accessory 62. [Step S94] .And it is distinguished whether the pachinko ball usually won a prize of the specific region of the electric accessory 62 within the prescribed period concerned (passage). [Step S96] .Supposing a pachinko ball wins a prize of a specific region (YES) (passage),

the right of a hit will occur and hit processing will be performed. [Step S98] In hit processing, on condition that a prize of the 3rd type start opening is won, a big prize port is opened. For example, if the pachinko ball which was conveyed by the solid of revolution 26 of the accessory apparatus 24, and won a prize is detected by the prize sensor 30, it will be judged that a prize of the 3rd type start opening was won. By the judgment concerned, only the 2nd opening period (for example, for 6 seconds) opens the lid 34 of the big prize port 32 wide, and if a pachinko ball carries out prescribed number (for example, ten pieces) winning a prize even if it is within the 2nd opening period concerned, it will be closed down. Opening and closing of the lid 34 of such a big prize port 32 are continued within the limits of upper limit frequency (for example, 16 times). Since awarded balls are paid out according to the number of the pachinko balls which won a prize also by execution of this hit processing, the opportunity for a game person to get many awarded balls is given. In this way, after performing hit processing, privilege executive operation is usually ended. It may replace with the mode which opens the lid 34 of the big prize port 32, and only the 2nd opening period may open the lid 72 of the big prize port 56 wide. If it carries out like this, the game person can usually acquire the same kind of privilege about the hit with a pattern, and great success by a special pattern. If a privilege flag is usually off here at distinction of Step S90 — (NO) — privilege executive operation is usually ended as it is.

[0040] In the special privilege executive operation of drawing 8 (B), ON and OFF of a privilege flag is distinguished specially first. [Step S100] .This special privilege flag is set as one at Step S34 of drawing 5 at the time of great success. If a privilege flag is one specially (YES), in preparation for the processing on and after next time, a privilege flag will be turned OFF specially. [Step S102] Great success processing is performed. [Step S104] If only the 1st opening period opens the lid 72 of the big prize port 56 wide, for example and a prize of V zone is won within an applicable time limit, this great success processing will be performed so that the big-hit-games state concerned can be continued within the number of times of necessary. Since awarded balls are paid out according to the number of the pachinko balls which won a prize by execution of this great success processing, the opportunity for a game person to get many awarded balls is given. In this way, after performing great success processing, privilege executive operation is ended specially, in addition — if a privilege flag is extraordinarily off at distinction of Step S100 — (NO) — privilege executive operation is ended specially as it is.

[0041] Next, it explains, referring to drawing 9 and drawing 10 for the example of composition of the command block equivalent to the display command sent to the display control board 200 from the main control substrate 100, and the pattern display processing performed in the display control board 200. The command block 300 shown in drawing 9 (A), Usually a pattern. The pattern number 302 and the special pattern number 306 which usually pinpoints the position (coordinates) which was usually pinpointed with the pattern number 302, and for which a pattern is usually displayed and which usually specify the pattern display position 304 and a special pattern to specify, and the special pattern specified by the special pattern number 306. In order to distinguish the justification of the lapsed time 312 from the start time in the special pattern display position 308 which pinpoints the position (coordinates) to display, a special pattern and the ornament pattern number 310 which usually specifies ornament patterns other than a pattern, pattern fluctuation, animation, etc., and data. It has the checksums 314 (or error correcting code etc. which can correct error data) etc. to be used.

[0042] The number usually peculiar to a pattern and a special pattern which can be displayed is attached, respectively, and the pattern which should be displayed is usually specified by the pattern number 302 or the special pattern number 306. What is necessary is just to specify the pattern number corresponding to the number, in [two or more] usually displaying a pattern almost simultaneous. For example, when displaying three special patterns (left figures, right figures, middle figures) almost simultaneous, the pattern number 302 is usually specified by the left-figures number 302a, the middle-figures number 302b, the right-figures number 302c, etc. so that it may illustrate

to drawing 9 (B). To [further two or more] usually display a pattern simultaneously, it is necessary to pinpoint the pattern display position corresponding to the number. In the example of drawing 9 (C), the pattern display position 304 is usually pinpointed with the left-figures display position 304a, the middle-figures display position 304b, the right-figures display position 304c, etc. Although the pattern was usually shown here, the same may be said of the case where a special pattern is specified. The ornament pattern displayed if needed as well as a pattern etc. usually attaches a peculiar number, respectively, and the ornament pattern which should be displayed is specified with the ornament pattern number 310. When a large number [an ornament pattern], in order to make the command block 300 easy to set up for combining and displaying, the group division of the ornament pattern is carried out, it memorizes in the ROM112,202 grade, and the peculiar number is attached for every groups involved. And in the command block 300, the ornament pattern displayed by the number for every group is specified.

[0043]Next, pattern display processing as which the display control board 200 which received a display command sent from the main control substrate 100 performs pattern edit, and displays a pattern on the pattern display 22 is explained, referring to drawing 10. A display command shall be memorized by receive buffer provided in RAM204 grade shown in drawing 3 by an interruption program executed the whole reception interruption. This receive buffer has the capacity which is a grade which can memorize a display command, other received data, etc. CPU210 is reading about the command block 300 as a display command first memorized by receive buffer in pattern display processing shown in drawing 10. [Step S110] An indicative data is acquired based on the read command block 300, and it memorizes to RAM204. [Step S112] An indicative data is acquired with reference to what is the data table etc. which were memorized by ROM202 grade and more specifically specified relation between the command block 300 and an indicative data. This indicative data is a data element (parameter) for performing pattern edit, for example, a reach pattern, the common pattern number 302, and common pattern display position 304 grade correspond. Then, CPU210 transmits an acquired indicative data to VDP214.

[0044]VDP214 which received the indicative data from CPU210 extracts the data of a pattern etc. from the character generator 212 based on the indicative data concerned. [Step S114] After performing pattern edit of color scheme specification, sprite processing, etc. [Step S116] Data is developed on VRAM or palette RAM. [Step S118]. And the developed data is changed into a pattern signal and it outputs to the pattern display 22. [Step S120] In this way, the pattern etc. which were edited based on the indicative data can be displayed on the pattern display 22. Since VDP214 as hardware performs pattern edit, a foreground pattern and a background figure handle can be displayed at high speed.

[0045]Next, the example which performs processing shown in drawing 4 – drawing 9, and usually displays a pattern (foreground pattern) and a special pattern (background figure handle) on the pattern display 22 is explained, referring to drawing 12 and drawing 13. This example shows the case which is "becoming it a great success" by a special pattern, after usually becoming a "blank" in a pattern, and it omits a graphic display and explanation about the case which both sides generate in a "blank." As for a left-hand side and inside side, the viewing area of the pattern display 22 is provided with three right-hand side variable regions (it is hereafter called the left variable region, an inside variable region, and the right variable region in order of.), and after it starts pattern fluctuation in each variable region, it assumes that it stops each left figures, middle figures, and right figures in three steps. If the same pattern as the horizontal single tier of a slanting single tier, the upper row, the middle, and the lower berth gathers after change, it will be assumed that it becomes "great success" and "a hit." In the following explanation, it is usually assumed that it is a thing using a pattern with the special pattern shown in drawing 11. That is, the left figures 80 as a pattern, the middle figures 82, and the right figures 84 arrange from the pattern "1" of a number to "9" in order, and although the left figures 80 and the right figures 84 are the same arrangement order, they usually constitute them in arrangement order only with the reverse middle figures 82, so that it may

illustrate to drawing 11 (A). The left figures 90 as a special pattern, the middle figures 92, and the right figures 94 consist of nine patterns in which arrangement seems to be different from each other, respectively so that it may illustrate to drawing 11 (B). The kinds of the pattern concerned are a vertical bar, a horizontal line, a slash (from the upper left to the lower right, from the upper right to the lower left), a star or snow, an inverse triangle, a lattice (every direction, slant), and which stair-like pattern so that it may illustrate.

[0046] If a pachinko ball wins a prize of the pattern fluctuation start opening 66, as shown in drawing 12 (A), based on a variation pattern, a pattern and a special pattern will usually start pattern fluctuation almost simultaneous [Step S46 of drawing 6]. If it usually becomes reach in a pattern after that, as shown in drawing 12 (B), the left figures 80 and the right figures 84 will stop [Step S48 of drawing 6]. In both the examples of drawing 12 (B), since the left figures 80 and the right figures 84 of the upper row are in agreement in the pattern "5" of a number, the leech line 86 is displayed with the character "reach." And since it has not gathered in the same pattern "5" as all of the horizontal single tier of a slanting single tier, the upper row, the middle, and the lower berth as shown in drawing 12 (C) when the middle figures 82 stop eventually, the lottery result with a pattern is usually a "blank." If it continues changing as a special pattern is shown in drawing 13 (A) also in the meantime, and it becomes reach by a special pattern after that, as shown in drawing 13 (B), the left figures 90 and the right figures 94 will stop [Step S66 of drawing 7]. In both the examples of drawing 13 (B), since the left figures 90 and the right figures 94 of the middle are in agreement in the pattern which consists of a pattern of an inverse triangle, the leech line 96 is displayed with the character "reach." And since the pattern of the same pattern as the horizontal single tier of the middle gathered as the middle figures 92 stopped eventually and it was shown in drawing 13 (C), the lottery result by a special pattern is "great success." In order to report to a game person that it was becoming it a great success at this time, the character "great success" is displayed on the pattern display 22 as the message 98. In this way, since the big prize port 56 will open temporarily if it is becoming it a great success, when a game person makes a pachinko ball win a prize, an opportunity to gain many awarded balls is obtained. Therefore, since it may hit in a special pattern (background figure handle) even if it usually shifts in a pattern (foreground pattern), the game person can play a game with the hope that a privilege may be able to be acquired, according to a special pattern. Since it displayed on the background figure handle (special pattern) at the foreground pattern (usually pattern) using the pattern which seems to be shown in drawing 11 (B) using the pattern of the character shown in drawing 11 (A), respectively, distinction of both patterns is easy and a game person is not impressed confusing.

[0047] According to the above-mentioned Embodiment 1, the effect taken below can be acquired. When it corresponds to Claim 1, and the common pattern (the left figures 80, the middle figures 82, right figures 84; foreground pattern) currently changed by the 1st lottery hits and the main control substrate 100 (game control part 2) stops in a pattern (specified pattern), (1) [Step S26 of drawing 5]. The lid 34 of the big prize port 32 is opened [Step S98 of drawing 8 (A)]. (the 1st privilege is given to a game person) When the special pattern (the left figures 90, the middle figures 92, right figures 94; background figure handle) currently changed by the 2nd lottery stops the main control substrate 100 by a big hit pattern (prescribed pattern), [Step S32 of drawing 5]. The lid 72 of the big prize port 56 is opened [Step S104 of drawing 8 (B)]. (the 2nd privilege is given to a game person) Therefore, the game person can usually play a game with the hope which expects a privilege not only about a pattern but about a special pattern, i.e., both patterns.

(2) It corresponded to Claim 2, only the 2nd opening period usually opened the lid 72 of the big prize port 56 wide by the 1st privilege with a pattern, and only the 1st opening period opened the lid 72 of the big prize port 56 wide by the 2nd privilege by a special pattern. That is, the kind of the 1st privilege and the 2nd privilege was made the same. Since the kind same about both a foreground pattern and a background figure handle of privilege will be given if it carries out like this, a game can be played with the hope which expects the privilege as for which a game person crawls, and which is

given with at least one [a gap or] pattern.

(3) [Step S24 of drawing 5 and S30] which correspond to Claim 3 and are changed and which suspended change of the special pattern after the stop concerned when the pattern usually separated and it stopped in the pattern (patterns other than a specified pattern). If it carries out like this, even if either pattern of a pattern and a special pattern will usually stop a game person and a privilege will not be given, a privilege may be given if the pattern of the other stops. Therefore, the game person can play a game with the hope which expects the privilege given by at least one side of the 1st privilege and the 2nd privilege. This is the same even when usually suspending change of a pattern after the stop concerned, if the special pattern currently changed separates and it stops in a pattern (patterns other than a prescribed pattern).

(4) It corresponded to Claim 5, the left figures 80 as a pattern, the middle figures 82, the right figures 84, the left figures 90 as a special pattern, the middle figures 92, and the right figures 94 were usually superimposed, and it displayed on the pattern display 22 (display) [refer to drawing 13]. If the part (field) displayed by superimposing is seen, it understands whether it became a foreground pattern and a pattern which can give a privilege with a background figure handle, respectively at this time. Therefore, the game person can distinguish easily whether a privilege is given or not only by seeing the part concerned.

[0048]In the above-mentioned Embodiment 1, the special pattern was used as a background figure handle, usually using a pattern as a foreground pattern. It may replace with this form and may carry out with the form shown below.

(1) A pattern may usually be used as a background figure handle, using a special pattern as a foreground pattern. Even in this case, the game person can usually play a game with the hope that a privilege may be able to be acquired, irrespective of a special pattern with a pattern.

(2) A special pattern may be used for both a foreground pattern and a background figure handle. In this case, it corresponds to Claim 2 and a privilege may be given by the special pattern as a background figure handle irrespective of what happened to the special pattern as a foreground pattern. Therefore, the game person can play a game with the hope that a privilege may be able to be acquired, according to the special pattern as a background figure handle. This is the same even when a pattern is usually used for both a foreground pattern and a background figure handle.

(3) Animations, such as Still Picture Sub-Division used by the above-mentioned Embodiment 1, such as patterns, such as not only a pattern but a figure, a sign, a pattern, etc., scenery, a pattern, a character, and animation, or an image may be used for a foreground pattern or a background figure handle. Since the display mode of the pattern display 22 will be diversified and expression will also become rich if it carries out like this, it becomes easy to attract a game person. Also in Embodiment 2 mentioned later, this is the same.

(4) Although the display 6 was constituted from the pattern display 22 of 1, the display 6 may consist of two or more displays for indication. In this case, a foreground pattern and a background figure handle may be displayed on a separate display for indication, and at least two or more displays for indication may perform the same display. It becomes easy for a game person to recognize the pattern concerned to display on a specific display for indication the pattern which should be observed, and if the same display as two or more displays for indication is performed, the game person can recognize with a convenient display for indication.

[0049][Embodiment 2] Embodiment 2 is the example which applied this invention to the 1st sort pachinko machine which is one of the game machines, and is a mode which gives a game person a privilege with the combination of a foreground pattern and a background figure handle. This Embodiment 2 is described referring to drawing 14 - drawing 20.

[0050]A front view shows the appearance of the pachinko machine 500 which is the 1st sort pachinko machine to drawing 14. On the game board surface 502 of the pachinko machine 500 shown in drawing 14, The pachinko ball to pass. By the 1st type start opening 520 and the solenoid 544 which have the imitation gate 514,552 which does not detect passage of a pachinko ball

although the gate 522 which has the gate sensor 548 to detect, and its gate 522 are imitated, and the start opening sensor 550 which detects the pachinko ball which won a prize. The big prize port 524 which has the lid 564 opened and closed, the complex device 504 which has the special pattern display for indication 512 and reserved ball lamp 510,518 grade so that it may mention later, other general prize ports, a windmill, a nail, etc. are arranged suitably.

[0051]The imitation gate 514 is equipped with the common pattern display 516 which changes or stops and usually displays a pattern among the imitation gates 514,552. Change starts and the pattern display 516 usually stops after specified time elapse, when it consists of a piece or two or more photogens (for example, LED which emits green and LED which emits red) and a pachinko ball passes to the gate 522. It changes by lighting, blink, etc. specifically carrying out a photogen, and if a specific photogen (for example, red LED) stops in the state of a lighted condition or putting out lights, only fixed time (for example, for 4 seconds) will open the lid of the lower start opening 558. the V zone 546 where the big prize port 524 will become continuable within the number of times of necessary (for example, 16 times) about a big-hit-games state if a pachinko ball other than the above-mentioned lid 564 wins a prize within a big prize port opening period (for example, for 20 seconds) -- awarded balls are only paid out -- it usually has a prize port etc. In order to detect the pachinko ball which won a prize, in the V zone 546, it has V zone sensor 542, and has the prize sensor 560 in the above-mentioned common prize port, respectively. The lower start opening 558 which has the start opening sensor 556 which detects the pachinko ball which won a prize under the big prize port 524 is established. The lower start opening 558 concerned is provided with a function equivalent to the 1st type start opening 520. These 1st type start opening 520 and lower start openings 558 will pay out awarded balls like the usual prize port, if a pachinko ball all wins a prize. Therefore, in the pachinko machine 500, when a pachinko ball wins a prize of the 1st type start opening 520 or the lower start opening 558, necessary conditions will be satisfied.

[0052]The complex device 504, A foreground pattern and a background figure handle. It has the special pattern display for indication 512 which can be displayed, the reserved ball lamp 510 which usually displays the number of a pachinko ball which passed through the gate 522 during change of a pattern, and the reserved ball lamp 518 grade which displays the number of the pachinko ball which won a prize of the 1st type start opening 520 or the lower start opening 558 during change of a special pattern. Hereafter, the number which can be recognized by the display of the reserved ball lamp 518 is called "the number of reserved balls."

[0053]The special pattern display for indication 512 equivalent to the display 6 displays a special pattern, an ornament pattern, etc. which consist of patterns, such as a character, a sign, a mark, a figure, and an image, using a liquid crystal display. If a pachinko ball wins a prize of the 1st type start opening 520 or the lower start opening 558, it is begun to change the special pattern displayed on this special pattern display for indication 512, and it stops after specified time elapse. Although the liquid crystal display was used as the special pattern display for indication 512, what kind of display for indication which can display a pattern may be used like CRT, a LED display device, and a plasma display. Although the pattern display 516 and the special pattern display for indication 512 were usually used separately, both sides may be made to serve a double purpose with the same display for indication. The reserved ball lamp 510,518 consists of a photogen (for example, four LED) of plurality [each].

[0054]The manual operation button 538 (final controlling element) in which a game person performs necessary operation in the lower part of the game board surface 502 to the pachinko machine 500, The lower dish 534 which stores temporarily the pachinko ball containing awarded balls, It has the handle 530 provided with the ash pan 536 into which the cigarette end of tobacco, etc. are put, and the touch sensor 532 which detects whether the game person's hand is touching, the loudspeaker 540 which provides in the inside of the top plate 528 which is a saucer of awarded balls, and makes sounds (a sound effect, music, etc.), etc. It has the lamps 506 which consist of a photogen arranged at the suitable position according to the frame opening sensor 526 which detects opening of the

glass frame 508 (it is also called a "metal flask" to others.), the game content of the pachinko machine 500, etc. The top plate 528 is equipped with the ball rental switch 554 which orders it ball rental, and the returning switch 562 which orders it return of a prepaid card.

[0055]Next, about the main control substrate 100 which realizes the pachinko game by the pachinko machine 500, and the display control board 200 which displays a pattern on the special pattern display for indication 512 in response to the display command sent from the main control substrate 100, these outline composition is shown in drawing 15. Since the composition of these main control substrates 100 and the display control board 200 is the same as that of Embodiment 1, detailed explanation is omitted. In the relation with Embodiment 1, input/output devices etc. specifically differ in respect of the following. Namely, in the main control substrate 100, the input processing circuit 102 as an input device which receives a detecting signal etc., For example, there are the manual operation button 538, a prize detection sensor (the gate sensor 548 and start opening sensor 550,556 grade), or other sensors (the frame opening sensor 526 and touch sensor 532 grade). As an output unit with which the output processing circuit 104 outputs a signal, there is solenoid 544 grade, for example. As a display object in which the display control circuit 106 carries out display control, there are the lamps 506, the reserved ball lamp 510,518, and common pattern display 516 grade, for example. In the display control board 200 which received the display information sent from CPU210, the pattern processed from VDP214 is outputted to the special pattern display for indication 512.

[0056]It explains in the pachinko machine 500 constituted as mentioned above, referring to drawing 16 – drawing 18 for the procedure performed by the main control substrate 100 or the display control board 200, in order to realize this invention. A flow chart shows the contents of the fluctuation displaying processing of the contents of the pattern fluctuation processing of the contents of the 1st type start opening processing to drawing 17 to drawing 18 to drawing 16, respectively. CPU110 executes the game control program stored in ROM112 in the main control substrate 100 shown in drawing 3 to suitable timing (for example, cycle in every 4 milliseconds), and each of these processings is realized. Since the pattern display processing performed in the composition and the display control board 200 of the command block 300 is the same as that of Embodiment 1 almost, a graphic display and explanation are omitted. As for the background figure handle (for example, privilege pattern) displayed on the special pattern display for indication 512, in the following explanation, a suitable pattern shall be displayed to suitable timing according to a game position etc. irrespective of a foreground pattern (for example, special pattern). Since the 1st type start opening 520 and the lower start opening 558 function similarly, in order to explain simply, they make the 1st type start opening 520 an example, and are explained.

[0057]The 1st type start opening processing shown in drawing 16 realizes winning-a-prize distinction of a pachinko ball to the 1st type start opening 520 like the start opening processing shown in drawing 4. First, it is distinguished whether the pachinko ball won a prize of the 1st type start opening 520. [Step S200] If a detecting signal is specifically received from the start opening sensor 550 shown in drawing 14 and drawing 15 — having won a prize (YES) — it distinguishes and distinguishes from (NO) which has not won a prize if the detecting signal concerned is not received. If a pachinko ball wins a prize of the 1st type start opening 520, it will be distinguished whether the number of reserved balls reached upper limit. [Step S202] If the number of reserved balls has not reached upper limit, (NO) and its number of reserved balls are added. [Step S204] LED of the reserved ball lamp 518 is turned on according to the added number of reserved balls. Then, it is a dead about reading and memory of various random numbers. [Step S206] The 1st type start opening processing is ended. When the pachinko ball has not won a prize of the 1st type start opening 520 (NO of Step S200), or when the number of reserved balls reaches upper limit (YES of Step S202), the 1st type start opening processing is ended without doing anything.

[0058]By the various random numbers which are read at the above-mentioned step S206, and are memorized to RAM114. For example, random number RH for a great success judging used in order

to distinguish whether it is great success. Random number RI for foreground patterns used since the foreground pattern displayed on the special pattern display for indication 512 is specified when distinguished from great success by the random number RH for a great success judging. The reach pattern random number RK used since a display pattern after becoming reach according to the reach pattern displayed on the random number RJ for background figure handles used since a background figure handle is similarly specified, and the special pattern display for indication 512 until it suspends change is specified. There are the random number RL for probability variations etc. which are used in order to distinguish whether a probability variation is performed after being becoming it a great success.

[0059] The pattern fluctuation processing shown in drawing 17 realizes pattern fluctuation performed with the special pattern display for indication 512 as well as the pattern fluctuation processing shown in drawing 5. It is distinguished first whether the number of reserved balls is a positive number. [Step S210] .When the number of reserved balls is a positive number, while reading (YES) and random number RH for a great success judging memorized at the above-mentioned step S206 [Step S212] The number of reserved balls is subtracted in preparation for next processing [Step S214] .In this way, LED of the reserved ball lamp 518 is turned on according to the subtracted number of reserved balls, and fluctuation displaying processing is performed. [Step S216] .The concrete contents of this fluctuation displaying processing are explained referring to drawing 18.

[0060] Fluctuation displaying processing shown in drawing 18 is equivalent to the 1st lottery and the 2nd lottery, and realizes a display from a start of pattern fluctuation to a stop. It is distinguished first whether it is "great success." [Step S230] It distinguishes by whether random number RH for a great success judging read at the above-mentioned step S212 was specifically in agreement with a great success value. About the number of a great success value, it is the same as that of Embodiment 1. It is reading about random number RI for foreground patterns and the random number RJ for background figure handles which were memorized at Step S206 of (YES) and drawing 16 when distinguished from "great success." [Step S232] A pattern which is due to be decided eventually according to the random number RI for foreground patterns concerned or the random number RJ for background figure handles is determined. Then, pattern fluctuation is started almost simultaneous about a foreground pattern and a background figure handle. [Step S234] Reach processing is performed after a while after a fluctuation start. [Step S236] .Since the concrete contents of reach processing are the same as that of Embodiment 1, a graphic display and explanation are omitted. In this way, after finishing reach processing, it progresses to the below-mentioned step S238. When distinguished from a "blank" at Step S230, in order to display (NO) and a blank pattern on the special pattern display for indication 512 on the other hand, after shifting and reading pattern data from RAM114 [Step S250] It is distinguished whether a reach pattern is included in the blank pattern concerned. [Step S252] A reach pattern is the same as that of Embodiment 1 except for a point that patterns differ. Supposing it includes a reach pattern (YES), it will progress to Step S234 later mentioned since it becomes reach on the way, although it becomes a "blank" eventually. If a reach pattern is not included, pattern fluctuation is started almost simultaneous about a foreground pattern and a background figure handle like (NO) and the above-mentioned step S234. [Step S254] It separates after a while after a fluctuation start, and stops in a pattern. [Step S256] It progresses to the below-mentioned step S238.

[0061] After finishing reach processing, it is distinguished whether it is a probability variation. [Step S238] .Specifically, the random number RL for probability variations memorized at Step S206 of drawing 16 distinguishes by whether it was in agreement with a specified value. When it distinguishes from a probability variation, after performing (YES) and probability variation processing [Step S240] Fluctuation displaying processing is ended. Since it is the same as that of Embodiment 1 about the contents of probability variation processing, a graphic display and explanation are omitted. a time of on the other hand not distinguishing from a probability variation in Step S238 — (NO) — fluctuation displaying processing is ended as it is. In the above-mentioned step S234, S236, S254, and S256, a

display command corresponding, respectively is sent to the display control board 200, and it realizes.

[0062]After finishing fluctuation displaying processing, it returns to drawing 17 and it is distinguished whether it is great success. [Step S218].With the reliable pachinko machine 500, it is distinguished whether it is "great success" based on the above-mentioned random number RH for success decisions that it is hard to be influenced by an extraneous noise etc. A special pattern actually displayed on the special pattern display for indication 512 if needed may distinguish whether it is great success by whether it is in agreement with a big hit pattern. If it "great success" Becomes (YES), after performing great success processing [Step S220] Pattern fluctuation processing is ended. This great success processing performs big hit games, such as only fixed time (for example, for 30 seconds) opening the lid 564 of the big prize port 524 wide, for example, and paying out awarded balls according to the number of pachinko balls which won a prize. if it "blank" becomes by distinction of Step S218 on the other hand — (NO) — pattern fluctuation processing is ended as it is.

[0063]Next, the example which performs processing shown in drawing 16 – drawing 18, and displays a foreground pattern and a background figure handle on the special pattern display for indication 512 is explained, referring to drawing 19 and drawing 20. This example is an example of the case which is "becoming it a great success" in the combination of a foreground pattern and a background figure handle, and omits a graphic display and explanation about the case of a "blank" by which it is generated. Since it is easy, it is assumed that from the pattern "1" of a number to "9" is used for a special pattern, and the pattern of a character is used for a privilege pattern. Animation displayed as an ornament pattern is omitted in order to simplify explanation and a graphic display.

[0064]If a pachinko ball wins a prize of the 1st type start opening 520, as shown in drawing 19 (A), based on a variation pattern, a special pattern and a privilege pattern will start pattern fluctuation almost simultaneous [Step S234 of drawing 18]. If it becomes reach by a special pattern after that, as shown in drawing 19 (B), the left figures 570 and the right figures 574 will stop [Step S236 of drawing 18]. In both the examples of drawing 19 (B), since the left figures 570 and the right figures 574 of the middle are in agreement in the pattern "7" of a number, the leech line 576 is displayed with the character "reach." Then, since the same pattern "7" as the horizontal single tier of the middle gathered as the middle figures 572 stopped and it was shown in drawing 19 (C), the lottery result by a special pattern is "great success." Changing a privilege pattern is continued and it stops after that also in the meantime. Here, as shown in drawing 20 (A), the special pattern 578 (the left figures 570, the middle figures 572, right figures 574) and the privilege pattern 580 have a special pattern and a privilege pattern in the relation between a foreground and a background to the special pattern display for indication 512. Therefore, when a game person etc. look at the special pattern 578 and the privilege pattern 580 from the transverse plane of the special pattern display for indication 512, it superimposes and seems to be shown in drawing 20 (B). In the example of drawing 20 (B), since both the special pattern 578 and the privilege pattern 580 are overlapped in the pattern of a character with the relation of a graphic display, it is hard to distinguish, but in the actual pachinko machine 500, it can distinguish easily by changing color, a pattern, etc. of the special pattern 578 or the privilege pattern 580.

[0065]And the lottery result by a special pattern is "great success", and if a privilege pattern is also displayed as "great success", the privilege of big hit games will be given to a game person [Step S220 of drawing 17]. In this way, the game person can play a game with the hope that a privilege may be able to be acquired, with the combination of a foreground pattern and a background figure handle. Since the foreground pattern and the background figure handle were superimposed and displayed on the special pattern display for indication 512, if this part displayed by superimposing is seen, the game person can distinguish easily whether a privilege is given or not. The lottery result by a special pattern is "great success", and when a privilege pattern is displayed as a "blank", the privilege of big hit games is not given to a game person. On the contrary, even if the lottery result

by a special pattern is a "blank", a privilege pattern gives a game person the privilege of big hit games, when the character of "great success" is displayed. A privilege pattern gives a game person the privilege of a probability variation, when the character of "probability-changing great success" is displayed. And the time of "great success" The lottery result by a special pattern becoming and the privilege that a privilege pattern corresponds separately from the time of the character of "great success" being displayed may be given to a game person.

[0066]According to the above-mentioned Embodiment 2, an effect taken below can be acquired.

(1) It corresponds to Claim 4, and a privilege will be given to a game person, if it stops in combination of a specified pattern after changing combination of the special pattern 578 (foreground pattern) and the privilege pattern 580 (background figure handle) [Step S220 of drawing 17].

Therefore, the game person can play a game with a hope that a privilege may be able to be acquired, with combination of the special pattern 578 and the privilege pattern 580.

(2) Correspond to Claim 5, superimpose the special pattern 578 and the privilege pattern 580, and display on the special pattern display for indication 512 (display) [refer to drawing 20]. If a part (field) displayed by superimposing is seen, it understands whether combination of the special pattern 578 and the privilege pattern 580 turned into combination of a specified pattern at this time. Therefore, the game person can distinguish easily whether a privilege is given or not only by seeing the part concerned.

[0067]In the above-mentioned Embodiment 2, a privilege pattern was used as a background figure handle, using a special pattern as a foreground pattern. It may replace with this form and may carry out with a form shown below.

(1) A special pattern may be used as a background figure handle, using a privilege pattern as a foreground pattern. Even in this case, the game person can play a game with a hope that a privilege may be able to be acquired, irrespective of a privilege pattern according to a special pattern.

(2) A special pattern may be used for both a foreground pattern and a background figure handle. In this case, it corresponds to Claim 2 and a privilege may be given with a privilege pattern as a background figure handle irrespective of what happened to a privilege pattern as a foreground pattern. Therefore, the game person can play a game with a hope that a privilege may be able to be acquired, with a privilege pattern as a background figure handle. This is the same even when a privilege pattern is used for both a foreground pattern and a background figure handle.

[0068][Other embodiments] In the pachinko machine 10,500 (game machine) mentioned above, it is not limited for other structure, form, arrangement, number, operating conditions, etc. of a portion to the above-mentioned embodiment. For example, each of following forms adapting the above-mentioned embodiment can also be carried out.

(1) According to each above-mentioned embodiment, this invention was applied to the pachinko machine 10,500. It can replace with this form and this invention can be applied also like what is other game machines (for example, a pachislot machine, a ball arranging machine, a mahjong ball game machine, a video game machine, etc.) other than a pachinko machine, and was provided with a display which can display a foreground pattern and a background figure handle. being concerned — others — even if it is a game machine, the game person can play a game with a hope which expects a privilege not only about a foreground pattern but about a background figure handle.

[0069](2) In the above-mentioned Embodiment 1, the pattern was used for the foreground pattern and the special pattern was usually used for the background figure handle. Similarly, by Embodiment 2, the special pattern was used for the foreground pattern and the privilege pattern was used for the background figure handle. It replaces with this form, and if a prescribed condition is satisfied or a game person's intention is detected, it may constitute so that the pattern used for a foreground pattern and/or a background figure handle can be changed. As formation of a prescribed condition, the time of a foreground pattern and/or a background figure handle stopping by a prescribed pattern, for example after change, the time of a pachinko ball winning a prize / passing in big hit games at predetermined regions (the pattern fluctuation start opening 66, the 1st type start opening

520, etc.), etc. correspond. As a means to detect a game person's intention, for example not only in the manual operation button 50,538, Not only contact sensors (for example, a switch, a touch panel, a pressure sensor, etc.) but noncontact sensors (for example, a photosensor, an infrared sensor, etc.) or recognition systems (a voice recognition system, an image recognition system, etc.) etc. correspond. Since the pattern which can hold expectations that a privilege may be able to be acquired will change if it enables it to change a foreground pattern and the pattern used for a background figure handle, a game person's hope also increases.

[0070](3) In Embodiment 1, the time of a pachinko ball winning a prize of the pattern fluctuation start opening 66 in the pachinko machine 10, and winning a prize of the 1st type start opening 520 or the lower start opening 558 in Embodiment 2, respectively was considered as formation of necessary conditions [Step S10 of drawing 4, and Step S200 of drawing 17], when it replaces with this form (or — adding) and the number of reserved balls reaches upper limit among high probabilities and reduction of working hours according to the kind of game machine, time, a game position, etc. (what is called inside of full), a game ball wins a prize or passes to a predetermined region. It is good also considering the time of the fixed time in big hit games and after the end of big hit games and opening and closing members (movable wing pieces, such as a lid of a prize port, a shuttlecock, what is called a tulip etc.) being open, etc. as formation of necessary conditions. Since the opportunity for change and a stop of a background figure handle to be performed will also increase if it carries out like this, the hope of the game person that a privilege may be able to be acquired also increases.

[0071](4) At Embodiment 1, with the pachinko machine 10, when a pachinko ball won a prize of the pattern fluctuation start opening 66, fluctuation displaying processing for special patterns equivalent to the 1st lottery [refer to drawing 7] which is usually equivalent to fluctuation displaying processing for patterns [refer to drawing 6] and the 2nd lottery was performed. Similarly, in Embodiment 2, when a pachinko ball won a prize of the 1st type start opening 520 or the lower start opening 558, respectively, fluctuation displaying processing [refer to drawing 18] equivalent to the 1st lottery and the 2nd lottery was performed. fluctuation displaying processing which replaces with this form (or — adding) and corresponds to it according to formation of different necessary conditions (changing a start opening, a gate, etc. through which it wins for which a prize or passes) may be performed. For example, in Embodiment 1, if a pattern fluctuation start opening with the separate pattern fluctuation start opening 66 is established and a pachinko ball wins a prize of the pattern fluctuation start opening 66, fluctuation displaying processing for patterns will usually be performed, and if a pachinko ball wins a prize of a separate pattern fluctuation start opening, fluctuation displaying processing for special patterns will be performed. In this case, even if it is, the game person can play a game with a hope which expects a privilege not only about a foreground pattern but about a background figure handle.

[0072](5) At the above-mentioned Embodiment 1, the privilege pattern 580 of 1 was used for two or more special patterns (the left figures 90, the middle figures 92, right figures 94) as a background figure handle by Embodiment 2, respectively (refer to drawing 13 and drawing 20). It may replace with this form and two or more privilege patterns may be used for the special pattern of 1 by Embodiment 2 by Embodiment 1, respectively. In this case, even if it is, the same effect as each embodiment can be acquired. This is the same even when a background figure handle is made into other patterns (usually a pattern, an ornament pattern, etc.). The same can be said for the foreground pattern which becomes a background figure handle and combination.

[0073](6) According to the above-mentioned Embodiment 2, the privilege was given to the game person, when it stopped in the combination of the specified pattern after changing the combination of the special pattern 578 (foreground pattern) and the privilege pattern 580 (background figure handle) [Step S220 of drawing 17]. That is, the privilege was given to the game person when the combination of the pattern displayed just before or after two classes, respectively turned into combination of a specified pattern, as shown in drawing 20 (A). It replaces with this form, and a

privilege may be given to a game person when the combination of the pattern displayed just before or after three or more classes' multiple layers, respectively turns into combination of a specified pattern. A hierarchy number is changed according to a game position, or, in addition, it is good to change the size of a privilege according to the hierarchy number concerned. If it carries out like this, a variation will spread about the combination of a pattern.

[0074](7) Although the foreground pattern and the background figure handle were superimposed and displayed in each above-mentioned embodiment (refer to drawing 13 and drawing 20), a foreground pattern and a background figure handle may be displayed by turns, or it may arrange and display so that it may not superimpose. Even if it is these display modes, a game person may recognize a foreground pattern and a background figure handle easily, and may be able to distinguish simply whether a privilege is given or not. This is the same even when it is considered as multiple layers in the above (6). Here, it explains, referring to drawing 21 using the same mark as Embodiment 1 for the example put in order and displayed without usually superimposing a pattern (foreground pattern) and a special pattern (background figure handle). The pattern is displayed on the pattern display 22 so that drawing 21 (A) and drawing 21 (B) may understand depth perception for each in an oblique-projection drawing technique, perspective, etc. Signs that a character appreciates pictures in the example of drawing 21 (A) are imagined. To front sides, it is backward and the special pattern (the left figures 90, the middle figures 92, right figures 94) for which the pictures for which the bear on a par with a horizontal single tier was imitated, and which usually display a pattern (the left figures 80, the middle figures 82, right figures 84), are applied and are located in a line with a wall at the back side were imitated is displayed. In the example of drawing 21 (B), the automobile rally performed in grand nature is imagined, and the special pattern for which the clouds for which the car on a par with a horizontal single tier was imitated, and which usually display a pattern and float in empty at the back side were imitated is displayed on front sides. The common pattern and special pattern which are shown in drawing 21 (A) and drawing 21 (B) can recognize pattern order visually. That is, a pattern is usually recognized to be a foreground pattern and those who looked at the pattern display 22 recognize the special pattern which is located in the front sides in a viewing area and which is located in the back side to be a background figure handle. Thus, a foreground pattern and a background figure handle are discriminable by displaying a pattern by a drawing technique with depth perception. Therefore, even if it arranges and displays without usually superimposing a pattern (foreground pattern) and a special pattern (background figure handle), the same effect as each above-mentioned embodiment can be acquired.

[0075](8) By repeating a procedure of transmitting data (for example, command block 300) for every screen to the display control board 200 from the main control substrate 100, in the above-mentioned embodiment, This invention was applied to the pachinko machine 10 which performs pattern fluctuation based on a pattern display pattern, etc. (see drawing 6, drawing 7, etc.). Whenever it replaces with this form and performs pattern fluctuation etc., it is also possible to apply this invention to a pachinko machine which transmits data of a pattern display pattern to the display control board 200 only once from the main control substrate 100. When a game person operates the manual operation button 50, the main control substrate 100 transmits data of a pattern display pattern to the display control board 200 only once again, and continues pattern fluctuation etc. That is, when a game person operates the manual operation button 50, new pattern fluctuation etc. are begun. In this case, data volume transmitted to the display control board 200 from the main control substrate 100 decreases substantially for every pattern display pattern from every screen.

Therefore, since design man days, such as a program required for the main control substrate 100, can be reduced substantially, cost of a pachinko machine can also be reduced. Since new pattern fluctuation etc. start when you wish with a game person's intention, a hope which expects a privilege is further maintainable.

[0076]

[Effect of the Invention]According to this invention, the game person can play a game with the hope

which expects a privilege not only about a foreground pattern but about a background figure handle.

[Translation done.]

*** NOTICES ***

**JPO and INPI are not responsible for any
damages caused by the use of this translation.**

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

TECHNICAL FIELD

[Field of the Invention]This invention relates to the game machine provided with the display which can display a foreground pattern and a background figure handle.

[Translation done.]

*** NOTICES ***

JPO and INPI are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

PRIOR ART

[Description of the Prior Art]Many of pachinko machines which are one of the game machines are provided with the display for indication which can display a foreground pattern and a background figure handle. The special pattern etc. which perform change and a stop, for example correspond to a foreground pattern. A background figure handle is a pattern for an ornament displayed on the background side of a foreground pattern, for example, a character etc. correspond. As for a left-hand side and inside side, the special pattern as a foreground pattern is displayed in three right-hand side variable regions, for example. If a game ball wins a prize of predetermined regions (for example, a start opening, a gate, etc.) or it passes, the special pattern concerned will begin change and will suspend it after that. According to a variation pattern, it changes after starting change (it calls the following "pattern fluctuation") of the pattern group concerning a special pattern until it stops, and two or more display patterns are usually prepared by one set of a pachinko machine. According to a random number etc., it is determined according to which variation pattern it changes.

[0003]Some of the conventional pachinko machines were provided with the display for indication which can usually display a pattern other than the above-mentioned special pattern as a foreground pattern. When the pachinko ball won a prize of a start opening, it was begun to change the special pattern displayed on the center section of the display for indication in the pachinko machine concerned, and when it stopped by the big hit pattern (for example, pattern "777") after that, it performed big hit games. Similarly, the pattern usually opened temporarily the opening and closing member (what is called a tulip) which is displayed on the left lower quadrant of the display for indication concerned and with which the start opening was equipped, when it began to change it when the pachinko ball passed through the gate, and it hit after that and stopped in the pattern (for example, pattern "7").

[Translation done.]

*** NOTICES ***

**JPO and INPIT are not responsible for any
damages caused by the use of this translation.**

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

EFFECT OF THE INVENTION

[Effect of the Invention]According to this invention, the game person can play a game with the hope which expects a privilege not only about a foreground pattern but about a background figure handle.

[Translation done.]

*** NOTICES ***

JPO and INPI are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

TECHNICAL PROBLEM

[Problem to be solved by the invention]However, in the conventional pachinko machine, the pattern was only usually displayed on the only same display for indication as the special pattern as a foreground pattern, and any relation was not given, either. It was usually only a pattern among foreground patterns that are not giving any relation about a foreground pattern and a background figure handle, either, and a game person moreover expects a privilege with the special pattern. This invention is made in view of such a point, and is enabling it to play a game with the hope which a game person expects that a privilege is not only about a foreground pattern but about a background figure handle.

[0005]

[The means for solving a technical problem 1] The means for solving a technical problem 1 is as having indicated to Claim 1. Here, about the term indicated to Claim 1, it interprets as follows. The same can be said for the claim of others [interpretation / concerned], and the detailed description of the invention:

- (1) "1st lottery" and the "2nd lottery" may be offered by the almost same lottery, and may be offered by different lottery.
- (2) It is all the patterns which can be displayed on "foreground pattern" at a display, and the patterns (usually pattern [A specified pattern and a special pattern] etc.) used for a lottery are included. For example, animations, such as Still Picture Sub-Division, such as not only patterns, such as characters (an alphanumeric character, a Chinese character, the Japanese syllabary, etc.), a figure, a sign, and a pattern, but scenery, a pattern, a character, and animation, or an image corresponds. It may be only one more kind of pattern, and two or more kinds of patterns may be combined arbitrarily.
- (3) "located back" means being in the position which looks visual to the backside. For example, when two or more patterns are superimposed and displayed and three dimensional space is displayed in two dimensions in the case where the pattern on the backside can be recognized, an oblique-projection drawing technique, perspective, etc., the case where the pattern on the backside can be recognized from the physical relationship of a pattern etc. correspond.
- (4) "background figure handle" can use the pattern used in a foreground pattern except for the point of being located behind a foreground pattern, and the same pattern including a prescribed pattern. In the field in which a foreground pattern is not displayed, a background figure handle may be similarly displayed as a foreground pattern. The number of patterns used with a foreground pattern and a background figure handle, a kind, a display position, etc. may be almost the same, and may differ from each other.
- (5) "display" may be all of the parts which can display a pattern about the display for indication (or display device) of 1, and may be a part of part concerned. It may constitute not only from the display for indication of further 1 but from two or more displays for indication.
- (6) Not only a perfect stop but a halt is included in "stop." Not only when standing it still, but the

case where a reference position is moved by arbitrary range scales in the directions arbitrary as a center is included in the state of a "stop."

(7) "privilege" means a game position advantageous to a game person, for example, there are kinds, such as big hit games, reduction of working hours (mode which shortens the fluctuation period of a pattern group), a probability variation (mode which changes the probability which is becoming it a great success). The privilege concerned may fix a kind in a game and may change a kind to a certain timing. The relation between "the 1st privilege" and the "2nd privilege" may be the same privilege, and may be a different privilege.

[0006] According to the means 1 concerned, a game control part will give a game person the 1st privilege, if the foreground pattern currently changed by the 1st lottery stops by a specified pattern, and if the background figure handle currently changed by the 2nd lottery stops by a prescribed pattern, it will give a game person the 2nd privilege. Therefore, the game person can play a game with the hope which expects a privilege not only about a foreground pattern but about a background figure handle.

[0007]

[The means for solving a technical problem 2] The means for solving a technical problem 2 is as having indicated to Claim 2. According to the means 2 concerned, the 1st privilege and the 2nd privilege were especially made into the same kind. Since the kind same about both a foreground pattern and a background figure handle of privilege is given, a game can be played with the hope which expects the privilege as for which a game person crawls, and which is given with at least one [a gap or] pattern.

[0008]

[The means for solving a technical problem 3] The means for solving a technical problem 3 is as having indicated to Claim 3. According to the means 3 concerned, if the background figure handle which will suspend change of a background figure handle after the stop concerned, or will be changed if the foreground pattern currently changed stops in patterns other than a specified pattern stops in patterns other than a prescribed pattern, change of a foreground pattern will be suspended after the stop concerned. If it carries out like this, even if a foreground pattern and one pattern of the background figure handles will stop a game person and a privilege will not be given, a privilege may be given if the pattern of the other stops. Therefore, the game person can play a game with the hope which expects the privilege given by at least one side of the 1st privilege and the 2nd privilege.

[0009]

[The means for solving a technical problem 4] The means for solving a technical problem 4 is as having indicated to Claim 4. If the foreground pattern and background figure handle which are changed stop in the combination of a specified pattern according to the means 4 concerned, a game control part will give a game person a privilege. Therefore, the game person can play a game with the hope which expects the privilege given with the combination of a foreground pattern and a background figure handle.

[0010]

[The means for solving a technical problem 5] The means for solving a technical problem 5 is as having indicated to Claim 5. Here, a part of the case of a foreground pattern and a background figure handle where all are overlapped mostly, and foreground pattern and background figure handle may be overlapped "to superimpose a foreground pattern and a background figure handle". [of the term indicated to Claim 5] The same can be said for the claim of others [interpretation / concerned]. and the detailed description of the invention.

[0011] According to the means 5 concerned, a foreground pattern and a background figure handle are superimposed and displayed on a display. If the part (field) displayed by superimposing is seen, it understands whether it became a foreground pattern and a pattern which can give a privilege with a background figure handle, respectively at this time. Therefore, the game person can distinguish

easily whether a privilege is given or not only by seeing the part concerned.

[0012]

[Mode for carrying out the invention]Hereafter, the embodiment in this invention is described based on Drawings.

[Embodiment 1] Embodiment 1 is the example which applied this invention to the 1st sort pachinko machine which is one of the game machines, and a foreground pattern and a background figure handle are modes which give a game person a privilege independently. This Embodiment 1 is described referring to drawing 1 – drawing 14.

[0013]It explains referring to drawing 1 in which the outline of this invention was shown typically first. The game machine shown in drawing 1 has the display control part 4 grade which can display a foreground pattern and a background figure handle on the display 6 in response to the game control part 2 which will output the display command which orders it a necessary display, and will give a game person a privilege if necessary conditions are satisfied, and the outputted display command. A foreground pattern is usually made into the pattern 6a, and the background figure handle usually used behind the pattern 6a is made into the special pattern 6b. In order to explain simply here, the pattern 6a is usually made into the pattern of only a number, and the special pattern 6b is made into the pattern of only a pattern. "Necessary conditions" means appropriately the conditions which can be set up according to the kind of game machine, time, a game position, etc., and is the same as that of the following. For example, the thing which a game ball wins a prize or passes to a predetermined region when the number of reserved balls reaches upper limit among high probabilities and reduction of working hours (what is called inside of full), The time of the fixed time in big hit games and after the end of big hit games and opening and closing members (movable wing pieces, such as a lid of a prize port, a shuttlecock, what is called a tulip etc.) being open, etc. correspond. It may fix in a game and the necessary conditions concerned may be changed to a certain timing.

[0014]The foreground pattern and background figure handle which are displayed on the display 6 by the image editing which the display control part 4 performs are as follows, for example, namely, — not becoming a pattern "555" of the Zorro eye eventually, although it usually began to change the pattern 6a and the special pattern 6b and usually reached in the pattern "5" on the upper row horizontal line of the pattern 6a at reach — "blank" *****. Then, reach is reached in the pattern which consists of a dissemination pattern of an inverse triangle (namely, form of "**") on the middle horizontal line of the special pattern 6b, and, also eventually, it is "becoming it a great success" in the pattern of the pattern concerned. When it usually becomes a "blank" in the pattern 6a, it is not always "becoming it a great success" by the special pattern 6b, and becomes a "blank" in comparatively many cases. At this time, the game control part 2 begins big hit games, and gives a game person the 2nd privilege. Similarly, if the pattern 6a usually becomes a hit in the pattern "555" of for example, the Zorro eye, the game control part 2 will begin a hit game, and will give a game person the 1st privilege. Thus, the 1st privilege may usually be given with the pattern 6a as a foreground pattern, and the 2nd privilege may be given to a game person by the special pattern 6b as a background figure handle. Even if the 1st privilege and the 2nd privilege may have a kind, same size, etc. and it is [either] small, one may differ. Therefore, the game person can play a game with the hope which expects a privilege not only about a foreground pattern but about a background figure handle, i.e., both patterns.

[0015]Here, the mode of the foreground pattern (usually pattern 6a) shown below and a background figure handle (special pattern 6b) is also realizable. Even if it is these modes, the game person can play a game with the hope that a privilege may be able to be acquired.

(1) Although the foreground pattern was usually made into the pattern 6a and the background figure handle was made into the special pattern 6b, it is good also considering [both] a foreground pattern and a background figure handle as the special pattern 6b. If it carries out like this, even if it shifts, by the special pattern 6b as a foreground pattern, it may be becoming it a great success with

the foreground pattern as a background figure handle. This is the same, when it was alike also in the foreground pattern and the background figure handle and was usually considered as the pattern 6a, or even when it makes a foreground pattern into the special pattern 6b and a background figure handle is usually made into the pattern 6a. Therefore, the opportunity for a game person to acquire the privilege by great success etc. since 2 times of chances are given increases.

(2) When the combination of a foreground pattern and a background figure handle turns into combination of a specified pattern, it may constitute so that a privilege may be given to a game person. Each of foreground patterns at this time and background figure handles may usually be the patterns 6a, and may be the special patterns 6b. Therefore, the game person can play a game with the hope that a privilege may be able to be acquired, with the combination of a foreground pattern and a background figure handle.

(3) when a foreground pattern and a background figure handle are superimposed and displayed (namely, — you make it pile each other up), if the part (or field) displayed by superimposing is seen, understand whether it became the combination of the specified pattern easily. Therefore, the game person can distinguish easily whether a privilege is given or not only by seeing the part concerned. If a foreground pattern and a background figure handle are superimposed and displayed, a viewing area can be made small and the display 6 can be made small by extension. In the viewing area of a limited area (namely, prescribed area), each pattern can be displayed greatly or the number of patterns can be increased.

[0016] Next, an example which applied this invention to the 1st sort pachinko machine provided with what is called an attacker with the 3rd type start opening is explained, referring to drawing 2 – drawing 10. Drawing 2 shows appearance of the pachinko machine 10 with a front view. On the game board surface 12 of the pachinko machine 10 shown in drawing 2, By the pattern fluctuation start opening 66 corresponding to the complex device 14 which has the pattern display 22 and reserved ball lamp 20 grade so that it may mention later, and necessary conditions which start pattern fluctuation, and the solenoid 54. The big prize port 56, the common electric accessory 62 which can open and close a movable wing piece (what is called a tulip), the accessory apparatus 24 which has the solid of revolution 26 and big prize port 32 grade so that it may mention later, other general prize ports and windmills, a nail, etc. which can open and close the lid 72 are arranged suitably.

[0017] The complex device 14 has the pattern display 22 grade which can display the reserved ball lamp 20 which displays the number of a pachinko ball which passed the pattern fluctuation start opening 66 during pattern fluctuation, and a foreground pattern and a background figure handle. The reserved ball lamp 20 has two or more photogens (for example, four LED). On these Descriptions, the number which can be recognized by the display of the reserved ball lamp 20 concerned is only called "the number of reserved balls" below. The pattern display 22 equivalent to the display 6 displays the special pattern, common pattern, and ornament pattern etc. which consist of patterns, such as a character, a sign, a mark, a pattern, a figure, and an image, as a foreground pattern or a background figure handle using a liquid crystal display. If a pachinko ball wins a prize of the pattern fluctuation start opening 66, it is begun to change the special pattern displayed on this pattern display 22, and it stops after specified time elapse. Although the liquid crystal display was used as the pattern display 22, what kind of display for indication which can display a pattern may be used like CRT, a LED display device, a plasma display, and a rotating-drum type display for indication. Although the pattern display 22 of 1 was used also [display / of a special pattern, a common pattern, etc.], it may display with a separate display for indication.

[0018] The pattern fluctuation start opening 66 has the start opening sensor 64 which detects the pachinko ball which won a prize and outputs a detecting signal. Therefore, in the pachinko machine 10, when a pachinko ball wins a prize of the pattern fluctuation start opening 66, necessary conditions will be satisfied. V zone sensor by which the big prize port 56 will become continuable within the number of times of necessary (for example, 16 times) about a big-hit-games state if a pachinko ball other than the above-mentioned lid 72 wins a prize within the 1st opening period (for

example, for 20 seconds) — awarded balls are only paid out — it usually has a prize port etc. In order to detect the pachinko ball which won a prize, in the above-mentioned V zone sensor, it has V zone sensor 70, and has the prize sensor 74 in the above-mentioned common prize port, respectively. The pattern fluctuation start opening 66 will pay out awarded balls like the usual prize port, if a pachinko ball wins a prize.

[0019]The electric accessory 62 usually has the solenoid 60 which opens and closes the above-mentioned movable wing piece, and the specific region sensor 58 grade which detects the pachinko ball which won a prize and outputs a detecting signal. Therefore, in the pachinko machine 10, it means that it had won a prize in the specific region that a pachinko ball usually wins a prize of the electric accessory 62 (or passage). The solid of revolution 26 which the accessory apparatus 24 is also called "an attacker with the 3rd type start opening", and has a crevice which can convey a pachinko ball, The solid of revolution 26 by the motor 28 rotated with the degree of about 1 constant speed, and the solid of revolution 26. It has the prize sensor 30 which detects the pachinko ball which was conveyed and won a prize, and outputs a detecting signal, and prize sensor which detects big prize port [which can open and close the lid 34] 32, and pachinko ball which won a prize of the big prize port 32, and outputs detecting signal by solenoid 76 36 grade. The crevice with which the above-mentioned solid of revolution 26 was equipped is equivalent to the 3rd type start opening, and detects the pachinko ball which won a prize of the 3rd type start opening concerned with the prize sensor 30. It may connect directly between the solid of revolution 26 and the motor 28, and it may be indirectly connected by torque transmission members, such as a gear and a link. Although the motor 28 uses a servo motor, other motors, such as a pulse motor, may be used.

[0020]The manual operation button 50 (final controlling element) in which a game person performs necessary operation in the lower part of the game board surface 12 to the pachinko machine 10, The lower dish 46 which stores temporarily the pachinko ball containing awarded balls, It has the handle 42 provided with the ash pan 48 into which the cigarette end of tobacco, etc. are put, and the touch sensor 44 which detects whether the game person's hand is touching, the loudspeaker 52 which provides in the inside of the top plate 40 which is a saucer of awarded balls, and makes sounds (a sound effect, music, etc.), etc. It has the lamps 16 which consist of a photogen arranged at the suitable position according to the frame opening sensor 38 which detects opening of the glass frame 18 (it is also called a "metal flask" to others), the game content of the pachinko machine 10, etc.

[0021]Next, the main control substrate 100 which realizes the pachinko game by the pachinko machine 10, It explains referring to drawing 3 in which these outline composition was shown for the display control board 200 which displays a pattern on the pattern display 22 in response to the display command (for example, command block) sent from the main control substrate 100. These main control substrates 100 and display control boards 200 are provided in the back side of the pachinko machine 10. The main control substrate 100 which is equivalent to the game control part 2 in drawing 3 is constituted focusing on CPU(processor) 110, A game control program and necessary game data. (For example, a great success value) etc. ROM112, various kinds of random numbers, data, an input output signal, etc. to store. RAM114 to store and the signal sent from various kinds of input devices. The input processing circuit 102 which is received and is changed into the data format which can be processed within the main control substrate 100, the output processing circuit 104 which operates various kinds of output units in response to the operation data sent from CPU110, and the indicative data sent from CPU110. It has the display control circuit 106 which wins popularity and displays various kinds of display objects suitably (lighting and blink are included), and communication control circuit to which necessary data is sent to display control board 200 116 grade. Each of these components is mutually combined with the bus 118.

[0022]Although CPU110 executes the game control program stored in ROM112 and the game by the pachinko machine 10 is realized, the program for realizing start opening processing etc. which are

mentioned later is also included in the game control program concerned. Although DRAM is used for RAM114 ROM112 using EPROM, the memory of other type may be used. There are EEPROM, SRAM, a flash memory, etc. as a memory of other type. As an input device with which the input processing circuit 102 receives a detecting signal etc., there are the manual operation button 50, a prize detection sensor (the start opening sensor 64, V zone sensor 70, prize sensor 74 grade), or other sensors (the frame opening sensor 38 and touch sensor 44 grade), for example. As an output unit with which the output processing circuit 104 outputs a signal, there are the solenoids 54 and 60 and 76 grades, for example. As a display object in which the display control circuit 106 carries out display control, there are the lamps 16 and reserved ball lamp 20 grade, for example. The communication control circuit 116 can send necessary data also to a frame control board, a hall computer, etc. which are not illustrated further if needed.

[0023]Next, the display control board 200 equivalent to the display control part 4 is constituted focusing on CPU210, a display control program and a necessary indicative data (for example, the display information corresponding to a display command.) A blank variation pattern. Two or more variation patterns, two or more reach patterns, etc. which are included. ROM202, a display command, display information, an input output signal, etc. to store. The pattern processed into the pattern display 22 in response to RAM204 to store, the communication control circuit 206 which receives and carries out the data sent from the main control substrate 100, the character generator 212 which memorizes a necessary pattern and is generated in response to instructions, and the display information sent from CPU210. It has the VDP(Video Display Processor)214 grade to display. Each of these components is mutually combined with the bus 208.

[0024]Although CPU210 executes the display control program stored in ROM202 and a pattern is displayed on the pattern display 22, the program for realizing pattern display processing etc. which are mentioned later is also included in the display control program concerned. Although ROM202 uses DRAM for RAM204 using EPROM, it may use the memory of the above-mentioned other type. The communication control circuit 206 can send necessary data also to a frame control board, a hall computer, etc. which are not illustrated further if needed. As pattern data which the character generator 212 generates, there are characters (an alphanumeric character, a Chinese character, etc.), patterns (special pattern, usually a pattern, an ornament pattern, etc.), Still Picture Sub-Division, animations (animation etc.), an image, etc., for example. VDP214 which has VRAM, palette RAM, etc. The pattern data which the character generator 212 generated in response to display information is read, and after performing image editings, such as color scheme specification and sprite processing, and developing pattern data to VRAM or palette RAM, a video signal, a synchronized signal, etc. are eventually outputted to the pattern display 22. The sprite function realized by performing sprite processing at this time enables it to usually fluctuate not only a pattern but the special pattern as a background figure handle simultaneous or un-simultaneous as a foreground pattern.

[0025]About the frame control board which controls the operation of a various device in response to the command signal sent from the main control substrate 100, or other substrates, since it is not connected with the summary of this invention, a graphic display and explanation are omitted. The expenditure equipment etc. which pay out a pachinko ball for the launcher which will discharge a pachinko ball as the above-mentioned various device if the handle 42 is operated, for example, a ball loan, or awarded balls correspond.

[0026]It explains in the pachinko machine 10 constituted as mentioned above, referring to drawing 4 – drawing 8 for the procedure performed by the main control substrate 100 or the display control board 200, in order to realize this invention. The contents of the pattern fluctuation processing of the contents of the start opening processing to drawing 4 to drawing 5 — drawing 6 — usually — a flow chart shows the contents of the fluctuation displaying processing for patterns, the contents of the fluctuation displaying processing for special patterns, and the contents of privilege executive operation to drawing 7 at drawing 8, respectively. The processings (for example, start opening

processing, pattern fluctuation processing, etc.) except pattern display processing among such procedure, CPU110 executes the game control program stored in ROM112 in the main control substrate 100 shown in drawing 3 to suitable timing (for example, cycle in every 4 milliseconds), and all are realized. In the display control board 200, to suitable timing, CPU210 and VDP214 execute a program and realize pattern display processing. As for a foreground pattern (for example, usually pattern) and a background figure handle (for example, special pattern), in the following explanation, a suitable pattern shall be displayed on the pattern display 22 by each to suitable timing according to a game position etc. Although "it adds" means that only 1 usually increases the number of reserved balls, etc., the case where it increases two or more [every] suitably according to a game position etc. is included. On the other hand, it is the same as that of the case where it adds except for the point of reducing the number of the reserved balls "to subtract", etc.

[0027] The start opening processing shown in drawing 4 realizes winning-a-prize distinction of a pachinko ball to the pattern fluctuation start opening 66. First, it is distinguished whether the pachinko ball won a prize of the pattern fluctuation start opening 66. [Step S10] If a detecting signal is specifically received from the start opening sensor 64 shown in drawing 2 and drawing 3 — having won a prize (YES) — it distinguishes and distinguishes from (NO) which has not won a prize if the detecting signal concerned is not received. If a pachinko ball wins a prize of the pattern fluctuation start opening 66, it will be distinguished whether the number of reserved balls reached upper limit (being a full state for example, four pieces). [Step S12] If the number of reserved balls has not reached upper limit, (NO) and its number of reserved balls are added. [Step S14] LED of the reserved ball lamp 20 is turned on according to the added number of reserved balls. Then, it is a deed about reading and memory of various random numbers. [Step S16] Start opening processing is ended. When the pachinko ball has not won a prize of the pattern fluctuation start opening 66 (NO of Step S10), or when the number of reserved balls reaches upper limit (YES of Step S12), start opening processing is ended as it is.

[0028] A random number related to a pattern and a random number related to a special pattern are usually one of various random numbers which are read at the above-mentioned step S16, and are memorized to RAM114. Random number RA for success decisions usually used as a random number related to a pattern in order to distinguish whether it is a hit, for example, The random number RB for hit patterns used since [which is displayed on the pattern display 22 when distinguished from a hit by the random number RA for success decisions] a pattern is usually specified. There are common reach pattern random number RC etc. which are used since [concerned] a display pattern after usually becoming reach in a pattern until it suspends change is specified. Random number RD for a great success judging used as a random number related to a special pattern in order to distinguish whether it is great success, for example, The random number RE for big hit patterns used since a special pattern displayed on the pattern display 22 is specified when distinguished from great success by the random number RD for a great success judging. There are random number RG for probability variations etc. which are used in order to distinguish whether a probability variation is performed after becoming special reach pattern random number RF used since a display pattern after becoming reach by the special pattern concerned until it suspends change is specified, and great success.

[0029] Pattern fluctuation processing shown in drawing 5 realizes pattern fluctuation displayed by the pattern display 22. It is distinguished first whether the number of reserved balls is a positive number (that is, number of reserved balls > 0 is filled). [Step S20] When the number of reserved balls is a positive number, the number of reserved balls is subtracted in preparation for processing of (YES) and next time. [Step S22] LED of the reserved ball lamp 20 is turned on according to the number of reserved balls subtracted at this time. And fluctuation displaying processing for patterns is usually performed. [Step S24] These contents with usually concrete fluctuation displaying processing for patterns are explained referring to drawing 6.

[0030] The fluctuation displaying processing for common patterns shown in drawing 6 is equivalent to

the 1st lottery, and a display after usually starting change of a pattern until it stops is realized. It is reading about random number RA for success decisions first memorized at Step S16 of drawing 4. [Step S40] It is distinguished by whether the random number RA for success decisions concerned hit, and it was in agreement with the value whether it is "a hit." [Step S42] Although a hit value is one piece in a normal state, the proper number may be fluctuated according to a game position (for example, probability variation) etc. It is reading about the random number RB for hit patterns similarly memorized at Step S16 if it "hit" Became (YES). [Step S44] The common pattern which is due to be decided eventually based on the value of the random number RB for hit patterns concerned is determined. And change is usually started for a pattern almost simultaneous with a special pattern. [Step S46] Change of a pattern is usually started and reach processing is performed after a while. [Step S48] Although reach processing which usually starts a pattern is usually performed based on reach pattern random number RC, since the contents of processing are the same as the contents of the reach processing concerning the special pattern mentioned later almost, a graphic display and explanation are omitted. In this way, after finishing reach processing, the fluctuation displaying processing for patterns is also usually ended.

[0031] It is reading from RAM114 about the blank pattern data usually for [if it "blank" becomes by distinction of Step S42 on the other hand, in order to display (NO) and a blank pattern on the pattern display 22] patterns. [Step S50] It is distinguished whether a reach pattern is included in the blank pattern concerned. [Step S52] The combination of the Fig. 1 handle (for example, left figures) and the Fig. 2 handle (for example, right figures) corresponds, and a reach pattern allots the same pattern (what is called a Zorro eye) in many pachinko machines 10. Supposing it includes a reach pattern (YES), change will usually be started for a pattern almost simultaneous with a special pattern. [Step S46] Although it becomes a "blank" eventually, since it becomes reach on the way, reach processing is performed. [Step S48] In this way, after finishing reach processing, the fluctuation displaying processing for patterns is also usually ended. If a reach pattern is not included by distinction of Step S52, change is usually started for a pattern almost simultaneous with a special pattern like (NO) and Step S46. [Step S54] After usually separating from the pattern and making it stop in a pattern [Step S56] The fluctuation displaying processing for patterns is usually ended. In the above-mentioned step S46, S48, and S54, a display command corresponding, respectively is sent to the display control board 200, and pattern fluctuation of a pattern is usually realized.

[0032] After usually finishing fluctuation displaying processing for patterns, it returns to drawing 5 and it is distinguished whether it is a hit. [Step S26] With the reliable pachinko machine 10, it is distinguished whether it is a "hit" based on the above-mentioned random number RA for success decisions that it is hard to be influenced by an extraneous noise etc. Actually having been displayed on the pattern display 22 if needed may distinguish whether it is a hit by whether for a pattern to usually hit at and to be in agreement with a pattern. After [which will be later mentioned if it "hit" becomes (YES)] usually making a privilege flag one in preparation for privilege executive operation [Step S28] Fluctuation displaying processing for special patterns is performed. [Step S30] On the other hand, if it "blank" Becomes by distinction of Step S26, fluctuation displaying processing for special patterns of (NO) present state step S30 will be performed. The concrete contents of this fluctuation displaying processing for special patterns are explained referring to drawing 7.

[0033] Fluctuation displaying processing for special patterns shown in drawing 7 is equivalent to the 2nd lottery, and a display after starting change of a special pattern until it stops is realized. It is reading about random number RD for a great success judging first memorized at Step S16 of drawing 4. [Step S60] It is distinguished by whether the random number RD for a great success judging concerned was in agreement with a great success value whether it is "great success." [Step S62] Although a great success value is one piece in a normal state, the proper number may be fluctuated according to a game position (for example, probability variation) etc. It is reading about the random number RE for big hit patterns similarly memorized at Step S16 if it "great success" Became (YES). [Step S64] A special pattern which is due to be decided eventually based on a value

of the random number RE for big hit patterns concerned is determined. And reach processing is performed about a special pattern. [Step S66]. This reach processing is the same as that of a common pachinko machine, for example, a reach pattern is determined according to a necessary data table etc. based on special reach pattern random number RF memorized at Step S16 of drawing 4, and a special pattern which is [which was determined at the above-mentioned step S64] due to be decided eventually. And according to a determined reach pattern, a display command is sent to the display control board 200, and pattern fluctuation after reach is realized.

[0034]The above-mentioned reach pattern is a pattern for realizing the display of pattern fluctuation, animation (ornament pattern), etc. Complete diagram handle change etc. of the mode changed while synchronizing usual change of the mode which rotates a reel, right reverse change of the mode shaken and moved to an arbitrary direction centering on the specified position on a screen, and a complete diagram handle (left figures, middle figures, right figures) are in the pattern fluctuation concerned. When changing in two or more variable regions, respectively, fluctuation velocity, the changing direction and the stopping times, turn, etc. under change are included in the variation pattern which realizes pattern fluctuation. Although the reach pattern which combined the Fig. 1 handle (for example, left figures) and the Fig. 2 handle (for example, right figures) is displayed on the pattern display 22, it may display on other display for indication and its both. Since a reach pattern etc. will be displayed also on displays for indication other than pattern display 22 if it carries out like this, it becomes easy to recognize what a reach pattern is. When displaying a reach pattern, a game person may be told about having reached reach further. For example, a character, predetermined animation, etc. of "reach" are displayed, a sound and a specific sound effect are taken out from the loudspeaker 52, and there is a mode of vibrating the chair in which the handle 42 which a game person touches, and a game person sit down. If it carries out like this, the game person can recognize having reached reach more certainly.

[0035]If it "blank" Becomes by distinction of Step S62, in order to display (NO) and a blank pattern on the pattern display 22 on the other hand, after reading the blank pattern data for special patterns from RAM114 [Step S80] It is distinguished whether a reach pattern is included in the blank pattern concerned. [Step S82]. The reach pattern is usually the same as that of a pattern except for the point that patterns differ. Supposing it includes a reach pattern (YES), although it becomes a "blank" eventually, since it becomes reach on the way, it will progress to the above-mentioned step S66. On the other hand, if a reach pattern is not included by distinction of Step S82, it stops in (NO) and a blank pattern. [Step S84] It progresses to the below-mentioned step S70.

[0036]After finishing reach processing, it is distinguished whether it is a probability variation. [Step S68]. It distinguishes by whether random number RG for probability variations memorized at Step S16 of drawing 4 was specifically in agreement with the specified value. When it distinguishes from a probability variation, after performing (YES) and probability variation processing [Step S70]

Fluctuation displaying processing is ended. About the contents of probability variation processing, since it is well-known, a graphic display and explanation are omitted. If the probability variation processing concerned is performed, the probability which stops by a big hit pattern and is becoming it a great success after change will increase, and the pattern fluctuation period of a special pattern will be shortened until it becomes next great success after this end of big hit games. The probability which hits after change, stops in a pattern and becomes a hit increases, and the pattern fluctuation period of a pattern is usually shortened. On the other hand, when it does not distinguish from a probability variation, the fluctuation displaying processing for (NO which is Step S68) present state special patterns is ended. In the above-mentioned step S66, S70, and S84, a display command corresponding, respectively is sent to the display control board 200, and pattern fluctuation etc. are realized.

[0037]After finishing the fluctuation displaying processing for special patterns, it returns to drawing 5 again and it is distinguished whether it is great success. [Step S32] With the reliable pachinko machine 10, it is distinguished whether it is "great success" based on random number RD for a

great success judging that it is hard to be influenced by an extraneous noise etc. The special pattern actually displayed on the pattern display 22 if needed may distinguish whether it is great success by whether it is in agreement with a big hit pattern. It is a preparation to the special privilege executive operation which will make a privilege flag one and will mention it later specially if it "great success" Becomes (YES). [Step S34] Pattern fluctuation processing is ended, if it "blank" becomes by distinction of Step S32 on the other hand — (NO) — pattern fluctuation processing is ended as it is.

[0038]Next, the contents of the processing which gives a game person a privilege are explained, referring to drawing 8. At drawing 8 (A), processing corresponding to the hit with a pattern is usually performed, and processing corresponding to great success by a special pattern is performed by drawing 8 (B).

[0039]In the common privilege executive operation of drawing 8 (A), ON and OFF of a privilege flag is usually distinguished first. [Step S90]. When a privilege flag usually hits, it is set as one at Step S28 of drawing 5. If a privilege flag is usually one (YES), after usually turning OFF a privilege flag in preparation for the processing on and after next time [Step S92] The solenoid 60 is operated and only a prescribed period (for example, for 3 seconds) usually opens the movable wing piece of the electric accessory 62. [Step S94]. And it is distinguished whether the pachinko ball usually won a prize of the specific region of the electric accessory 62 within the prescribed period concerned (passage). [Step S96]. Supposing a pachinko ball wins a prize of a specific region (YES) (passage), the right of a hit will occur and hit processing will be performed. [Step S98]. In hit processing, on condition that a prize of the 3rd type start opening is won, a big prize port is opened. For example, if the pachinko ball which was conveyed by the solid of revolution 26 of the accessory apparatus 24, and won a prize is detected by the prize sensor 30, it will be judged that a prize of the 3rd type start opening was won. By the judgment concerned, only the 2nd opening period (for example, for 6 seconds) opens the lid 34 of the big prize port 32 wide, and if a pachinko ball carries out prescribed number (for example, ten pieces) winning a prize even if it is within the 2nd opening period concerned, it will be closed down. Opening and closing of the lid 34 of such a big prize port 32 are continued within the limits of upper limit frequency (for example, 16 times). Since awarded balls are paid out according to the number of the pachinko balls which won a prize also by execution of this hit processing, the opportunity for a game person to get many awarded balls is given. In this way, after performing hit processing, privilege executive operation is usually ended. It may replace with the mode which opens the lid 34 of the big prize port 32, and only the 2nd opening period may open the lid 72 of the big prize port 56 wide. If it carries out like this, the game person can usually acquire the same kind of privilege about the hit with a pattern, and great success by a special pattern, if a privilege flag is usually off here at distinction of Step S90 — (NO) — privilege executive operation is usually ended as it is.

[0040]In special privilege executive operation of drawing 8 (B), ON and OFF of a privilege flag is distinguished specially first. [Step S100]. This special privilege flag is set as one at Step S34 of drawing 5 at the time of great success. If a privilege flag is one specially (YES), in preparation for the processing on and after next time, a privilege flag will be turned OFF specially. [Step S102] Great success processing is performed. [Step S104]. If only the 1st opening period opens the lid 72 of the big prize port 56 wide, for example and a prize of V zone is won within an applicable time limit, this great success processing will be performed so that the big-hit-games state concerned can be continued within the number of times of necessary. Since awarded balls are paid out according to the number of pachinko balls which won a prize by execution of this great success processing, an opportunity for a game person to get many awarded balls is given. In this way, after performing great success processing, privilege executive operation is ended specially, in addition — if a privilege flag is extraordinarily off at distinction of Step S100 — (NO) — privilege executive operation is ended specially as it is.

[0041]Next, it explains, referring to drawing 9 and drawing 10 for the example of composition of the

command block equivalent to the display command sent to the display control board 200 from the main control substrate 100, and the pattern display processing performed in the display control board 200. The command block 300 shown in drawing 9 (A), Usually a pattern. The pattern number 302 and the special pattern number 306 which usually pinpoints the position (coordinates) which was usually pinpointed with the pattern number 302, and for which a pattern is usually displayed and which usually specify the pattern display position 304 and a special pattern to specify, and the special pattern specified by the special pattern number 306. In order to distinguish the justification of the lapsed time 312 from the start time in the special pattern display position 308 which pinpoints the position (coordinates) to display, a special pattern and the ornament pattern number 310 which usually specifies ornament patterns other than a pattern, pattern fluctuation, animation, etc., and data. It has the checksums 314 (or error correcting code etc. which can correct error data) etc. to be used.

[0042]The number usually peculiar to a pattern and a special pattern which can be displayed is attached, respectively, and the pattern which should be displayed is usually specified by the pattern number 302 or the special pattern number 306. What is necessary is just to specify the pattern number corresponding to the number, in [two or more] usually displaying a pattern almost simultaneous. For example, when displaying three special patterns (left figures, right figures, middle figures) almost simultaneous, the pattern number 302 is usually specified by the left-figures number 302a, the middle-figures number 302b, the right-figures number 302c, etc. so that it may illustrate to drawing 9 (B). To [further two or more] usually display a pattern simultaneously, it is necessary to pinpoint the pattern display position corresponding to the number. In the example of drawing 9 (C), the pattern display position 304 is usually pinpointed with the left-figures display position 304a, the middle-figures display position 304b, the right-figures display position 304c, etc. Although the pattern was usually shown here, the same may be said of the case where a special pattern is specified. The ornament pattern displayed if needed as well as a pattern etc. usually attaches a peculiar number, respectively, and the ornament pattern which should be displayed is specified with the ornament pattern number 310. When a large number [an ornament pattern], in order to make the command block 300 easy to set up for combining and displaying, the group division of the ornament pattern is carried out, it memorizes in the ROM112,202 grade, and the peculiar number is attached for every groups involved. And in the command block 300, the ornament pattern displayed by the number for every group is specified.

[0043]Next, the pattern display processing as which the display control board 200 which received the display command sent from the main control substrate 100 performs pattern edit, and displays a pattern on the pattern display 22 is explained, referring to drawing 10. The display command shall be memorized by the receive buffer provided in the RAM204 grade shown in drawing 3 by the interruption program executed the whole reception interruption. This receive buffer has the capacity which is a grade which can memorize a display command, other received data, etc. CPU210 is reading about the command block 300 as a display command first memorized by the receive buffer in the pattern display processing shown in drawing 10. [Step S110] An indicative data is acquired based on the read command block 300, and it memorizes to RAM204. [Step S112] An indicative data is acquired with reference to what is the data table etc. which were memorized by the ROM202 grade and more specifically specified the relation between the command block 300 and an indicative data. This indicative data is a data element (parameter) for performing pattern edit, for example, a reach pattern, the common pattern number 302, and common pattern display position 304 grade correspond. Then, CPU210 transmits the acquired indicative data to VDP214.

[0044]VDP214 which received an indicative data from CPU210 extracts data of a pattern etc. from the character generator 212 based on the indicative data concerned. [Step S114] After performing pattern edit of color scheme specification, sprite processing, etc. [Step S116] Data is developed on VRAM or palette RAM. [Step S118]. And developed data is changed into a pattern signal and it outputs to the pattern display 22. [Step S120]. In this way, a pattern etc. which were edited based

on an indicative data can be displayed on the pattern display 22. Since VDP214 as hardware performs pattern edit, a foreground pattern and a background figure handle can be displayed at high speed.

[0045]Next, an example which performs processing shown in drawing 4 – drawing 9, and usually displays a pattern (foreground pattern) and a special pattern (background figure handle) on the pattern display 22 is explained, referring to drawing 12 and drawing 13. This example shows a case which is “becoming it a great success” by a special pattern, after usually becoming a “blank” in a pattern, and it omits a graphic display and explanation about a case which both sides generate in a “blank.” As for a left-hand side and inside side, a viewing area of the pattern display 22 is provided with three right-hand side variable regions (it is hereafter called the left variable region, an inside variable region, and the right variable region in order of), and after it starts pattern fluctuation in each variable region, it assumes that it stops each left figures, middle figures, and right figures in three steps. If the same pattern as a horizontal single tier of a slanting single tier, the upper row, the middle, and the lower berth gathers after change, it will be assumed that it becomes “great success” and “a hit.” In the following explanation, it is usually assumed that it is a thing using a pattern with a special pattern shown in drawing 11. That is, the left figures 80 as a pattern, the middle figures 82, and the right figures 84 arrange from a pattern “1” of a number to “9” in order, and although the left figures 80 and the right figures 84 are the same arrangement order, they usually constitute them in arrangement order only with the reverse middle figures 82, so that it may illustrate to drawing 11(A). The left figures 90 as a special pattern, the middle figures 92, and the right figures 94 consist of nine patterns in which arrangement seems to be different from each other, respectively so that it may illustrate to drawing 11(B). Kinds of the pattern concerned are a vertical bar, a horizontal line, a slash (from the upper left to the lower right, from the upper right to the lower left), a star or snow, an inverse triangle, a lattice (every direction, slant), and which stair-like pattern so that it may illustrate.

[0046]If a pachinko ball wins a prize of the pattern fluctuation start opening 66, as shown in drawing 12(A), based on a variation pattern, a pattern and a special pattern will usually start pattern fluctuation almost simultaneous [Step S46 of drawing 6]. If it usually becomes reach in a pattern after that, as shown in drawing 12(B), the left figures 80 and the right figures 84 will stop [Step S48 of drawing 6]. In both the examples of drawing 12(B), since the left figures 80 and the right figures 84 of the upper row are in agreement in the pattern “5” of a number, the leech line 86 is displayed with the character “reach.” And since it has not gathered in the same pattern “5” as all of the horizontal single tier of a slanting single tier, the upper row, the middle, and the lower berth as shown in drawing 12(C) when the middle figures 82 stop eventually, the lottery result with a pattern is usually a “blank.” If it continues changing as a special pattern is shown in drawing 13(A) also in the meantime, and it becomes reach by a special pattern after that, as shown in drawing 13(B), the left figures 90 and the right figures 94 will stop [Step S66 of drawing 7]. In both the examples of drawing 13(B), since the left figures 90 and the right figures 94 of the middle are in agreement in the pattern which consists of a pattern of an inverse triangle, the leech line 96 is displayed with the character “reach.” And since the pattern of the same pattern as the horizontal single tier of the middle gathered as the middle figures 92 stopped eventually and it was shown in drawing 13(C), the lottery result by a special pattern is “great success.” In order to report to a game person that it was becoming it a great success at this time, the character “great success” is displayed on the pattern display 22 as the message 98. In this way, since the big prize port 56 will open temporarily if it is becoming it a great success, when a game person makes a pachinko ball win a prize, an opportunity to gain many awarded balls is obtained. Therefore, since it may hit in a special pattern (background figure handle) even if it usually shifts in a pattern (foreground pattern), the game person can play a game with the hope that a privilege may be able to be acquired, according to a special pattern. Since it displayed on the background figure handle (special pattern) at the foreground pattern (usually pattern) using the pattern which seems to be shown in drawing 11(B) using the

pattern of the character shown in drawing 11 (A), respectively, distinction of both patterns is easy and a game person is not impressed confusing.

[0047]According to the above-mentioned Embodiment 1, the effect taken below can be acquired. When it corresponds to Claim 1, and the common pattern (the left figures 80, the middle figures 82, right figures 84; foreground pattern) currently changed by the 1st lottery hits and the main control substrate 100 (game control part 2) stops in a pattern (specified pattern), (1) [Step S26 of drawing 5]. The lid 34 of the big prize port 32 is opened [Step S98 of drawing 8 (A)]. (the 1st privilege is given to a game person) When the special pattern (the left figures 90, the middle figures 92, right figures 94; background figure handle) currently changed by the 2nd lottery stops the main control substrate 100 by a big hit pattern (prescribed pattern), [Step S32 of drawing 5]. The lid 72 of the big prize port 56 is opened [Step S104 of drawing 8 (B)]. (the 2nd privilege is given to a game person) Therefore, the game person can usually play a game with the hope which expects a privilege not only about a pattern but about a special pattern, i.e., both patterns.

(2) It corresponded to Claim 2, only the 2nd opening period usually opened the lid 72 of the big prize port 56 wide by the 1st privilege with a pattern, and only the 1st opening period opened the lid 72 of the big prize port 56 wide by the 2nd privilege by a special pattern. That is, the kind of the 1st privilege and the 2nd privilege was made the same. Since the kind same about both a foreground pattern and a background figure handle of privilege will be given if it carries out like this, a game can be played with the hope which expects the privilege as for which a game person crawls, and which is given with at least one [a gap or] pattern.

(3) [Step S24 of drawing 5 and S30] which correspond to Claim 3 and are changed and which suspended change of the special pattern after the stop concerned when the pattern usually separated and it stopped in the pattern (patterns other than a specified pattern). If it carries out like this, even if either pattern of a pattern and a special pattern will usually stop a game person and a privilege will not be given, a privilege may be given if the pattern of the other stops. Therefore, the game person can play a game with the hope which expects the privilege given by at least one side of the 1st privilege and the 2nd privilege. This is the same even when usually suspending change of a pattern after the stop concerned, if the special pattern currently changed separates and it stops in a pattern (patterns other than a prescribed pattern).

(4) It corresponded to Claim 5, the left figures 80 as a pattern, the middle figures 82, the right figures 84, the left figures 90 as a special pattern, the middle figures 92, and the right figures 94 were usually superimposed, and it displayed on the pattern display 22 (display) [refer to drawing 13]. If a part (field) displayed by superimposing is seen, it understands whether it became a foreground pattern and a pattern which can give a privilege with a background figure handle, respectively at this time. Therefore, the game person can distinguish easily whether a privilege is given or not only by seeing the part concerned.

[0048]In the above-mentioned Embodiment 1, a special pattern was used as a background figure handle, usually using a pattern as a foreground pattern. It may replace with this form and may carry out with a form shown below.

(1) A pattern may usually be used as a background figure handle, using a special pattern as a foreground pattern. Even in this case, the game person can usually play a game with a hope that a privilege may be able to be acquired, irrespective of a special pattern with a pattern.

(2) A special pattern may be used for both a foreground pattern and a background figure handle. In this case, it corresponds to Claim 2 and a privilege may be given by a special pattern as a background figure handle irrespective of what happened to a special pattern as a foreground pattern. Therefore, the game person can play a game with a hope that a privilege may be able to be acquired, according to a special pattern as a background figure handle. This is the same even when a pattern is usually used for both a foreground pattern and a background figure handle.

(3) Animations, such as Still Picture Sub-Division used by the above-mentioned Embodiment 1, such as patterns, such as not only a pattern but a figure, a sign, a pattern, etc., scenery, a pattern, a

character, and animation, or an image may be used for a foreground pattern or a background figure handle. Since the display mode of the pattern display 22 will be diversified and expression will also become rich if it carries out like this, it becomes easy to attract a game person. Also in Embodiment 2 mentioned later, this is the same.

(4) Although the display 6 was constituted from the pattern display 22 of 1, the display 6 may consist of two or more displays for indication. In this case, a foreground pattern and a background figure handle may be displayed on a separate display for indication, and at least two or more displays for indication may perform the same display. It becomes easy for a game person to recognize the pattern concerned to display on a specific display for indication the pattern which should be observed, and if the same display as two or more displays for indication is performed, the game person can recognize with a convenient display for indication.

[0049][Embodiment 2] Embodiment 2 is the example which applied this invention to the 1st sort pachinko machine which is one of the game machines, and is a mode which gives a game person a privilege with the combination of a foreground pattern and a background figure handle. This Embodiment 2 is described referring to drawing 14 – drawing 20.

[0050]A front view shows the appearance of the pachinko machine 500 which is the 1st sort pachinko machine to drawing 14. On the game board surface 502 of the pachinko machine 500 shown in drawing 14, The pachinko ball to pass. By the 1st type start opening 520 and the solenoid 544 which have the imitation gate 514,552 which does not detect passage of a pachinko ball although the gate 522 which has the gate sensor 548 to detect, and its gate 522 are imitated, and the start opening sensor 550 which detects the pachinko ball which won a prize. The big prize port 524 which has the lid 564 opened and closed, the complex device 504 which has the special pattern display for indication 512 and reserved ball lamp 510,518 grade so that it may mention later, other general prize ports, a windmill, a nail, etc. are arranged suitably.

[0051]The imitation gate 514 is equipped with the common pattern display 516 which changes or stops and usually displays a pattern among the imitation gates 514,552. Change starts and the pattern display 516 usually stops after specified time elapse, when it consists of a piece or two or more photogens (for example, LED which emits green and LED which emits red) and a pachinko ball passes to the gate 522. It changes by lighting, blink, etc. specifically carrying out a photogen, and if a specific photogen (for example, red LED) stops in the state of a lighted condition or putting out lights, only fixed time (for example, for 4 seconds) will open the lid of the lower start opening 558, the V zone 546 where the big prize port 524 will become continuable within the number of times of necessary (for example, 16 times) about a big-hit-games state if a pachinko ball other than the above-mentioned lid 564 wins a prize within a big prize port opening period (for example, for 20 seconds) — awarded balls are only paid out — it usually has a prize port etc. In order to detect the pachinko ball which won a prize, in the V zone 546, it has V zone sensor 542, and has the prize sensor 560 in the above-mentioned common prize port, respectively. The lower start opening 558 which has the start opening sensor 556 which detects the pachinko ball which won a prize under the big prize port 524 is established. The lower start opening 558 concerned is provided with a function equivalent to the 1st type start opening 520. These 1st type start opening 520 and lower start openings 558 will pay out awarded balls like the usual prize port, if a pachinko ball all wins a prize. Therefore, in the pachinko machine 500, when a pachinko ball wins a prize of the 1st type start opening 520 or the lower start opening 558, necessary conditions will be satisfied.

[0052]The complex device 504, A foreground pattern and a background figure handle. It has the special pattern display for indication 512 which can be displayed, the reserved ball lamp 510 which usually displays the number of a pachinko ball which passed through the gate 522 during change of a pattern, and the reserved ball lamp 518 grade which displays the number of the pachinko ball which won a prize of the 1st type start opening 520 or the lower start opening 558 during change of a special pattern. Hereafter, the number which can be recognized by the display of the reserved ball lamp 518 is called "the number of reserved balls."

[0053]The special pattern display for indication 512 equivalent to the display 6 displays a special pattern, an ornament pattern, etc. which consist of patterns, such as a character, a sign, a mark, a figure, and an image, using a liquid crystal display. If a pachinko ball wins a prize of the 1st type start opening 520 or the lower start opening 558, it is begun to change the special pattern displayed on this special pattern display for indication 512, and it stops after specified time elapse. Although the liquid crystal display was used as the special pattern display for indication 512, what kind of display for indication which can display a pattern may be used like CRT, a LED display device, and a plasma display. Although the pattern display 516 and the special pattern display for indication 512 were usually used separately, both sides may be made to serve a double purpose with the same display for indication. The reserved ball lamp 510,518 consists of a photogen (for example, four LED) of plurality [each].

[0054]The manual operation button 538 (final controlling element) in which a game person performs necessary operation in the lower part of the game board surface 502 to the pachinko machine 500, The lower dish 534 which stores temporarily the pachinko ball containing awarded balls, It has the handle 530 provided with the ash pan 536 into which the cigarette end of tobacco, etc. are put, and the touch sensor 532 which detects whether the game person's hand is touching, the loudspeaker 540 which provides in the inside of the top plate 528 which is a saucer of awarded balls, and makes sounds (a sound effect, music, etc.), etc. It has the lamps 506 which consist of a photogen arranged at the suitable position according to the frame opening sensor 526 which detects opening of the glass frame 508 (it is also called a "metal flask" to others.), the game content of the pachinko machine 500, etc. The top plate 528 is equipped with the ball rental switch 554 which orders it ball rental, and the returning switch 562 which orders it return of a prepaid card.

[0055]Next, about the main control substrate 100 which realizes the pachinko game by the pachinko machine 500, and the display control board 200 which displays a pattern on the special pattern display for indication 512 in response to the display command sent from the main control substrate 100, these outline composition is shown in drawing 15. Since the composition of these main control substrates 100 and the display control board 200 is the same as that of Embodiment 1, detailed explanation is omitted. In the relation with Embodiment 1, input/output devices etc. specifically differ in respect of the following. Namely, in the main control substrate 100, the input processing circuit 102 as an input device which receives a detecting signal etc., For example, there are the manual operation button 538, a prize detection sensor (the gate sensor 548 and start opening sensor 550,556 grade), or other sensors (the frame opening sensor 526 and touch sensor 532 grade). As an output unit with which the output processing circuit 104 outputs a signal, there is solenoid 544 grade, for example. As a display object in which the display control circuit 106 carries out display control, there are the lamps 506, the reserved ball lamp 510,518, and common pattern display 516 grade, for example. In the display control board 200 which received the display information sent from CPU210, the pattern processed from VDP214 is outputted to the special pattern display for indication 512.

[0056]It explains in the pachinko machine 500 constituted as mentioned above, referring to drawing 16 – drawing 18 for the procedure performed by the main control substrate 100 or the display control board 200, in order to realize this invention. A flow chart shows the contents of the fluctuation displaying processing of the contents of the pattern fluctuation processing of the contents of the 1st type start opening processing to drawing 17 to drawing 18 to drawing 16, respectively. CPU110 executes the game control program stored in ROM112 in the main control substrate 100 shown in drawing 3 to suitable timing (for example, cycle in every 4 milliseconds), and each of these processings is realized. Since the pattern display processing performed in the composition and the display control board 200 of the command block 300 is the same as that of Embodiment 1 almost, a graphic display and explanation are omitted. As for the background figure handle (for example, privilege pattern) displayed on the special pattern display for indication 512, in the following explanation, a suitable pattern shall be displayed to suitable timing according to a game

position etc. irrespective of a foreground pattern (for example, special pattern). Since the 1st type start opening 520 and the lower start opening 558 function similarly, in order to explain simply, they make the 1st type start opening 520 an example, and are explained.

[0057]The 1st type start opening processing shown in drawing 16 realizes winning-a-prize distinction of a pachinko ball to the 1st type start opening 520 like the start opening processing shown in drawing 4. First, it is distinguished whether the pachinko ball won a prize of the 1st type start opening 520. [Step S200]. If a detecting signal is specifically received from the start opening sensor 550 shown in drawing 14 and drawing 15 — having won a prize (YES) — it distinguishes and distinguishes from (NO) which has not won a prize if the detecting signal concerned is not received. If a pachinko ball wins a prize of the 1st type start opening 520, it will be distinguished whether the number of reserved balls reached upper limit. [Step S202]. If the number of reserved balls has not reached upper limit, (NO) and its number of reserved balls are added. [Step S204]. LED of the reserved ball lamp 518 is turned on according to the added number of reserved balls. Then, it is a dead about reading and memory of various random numbers. [Step S206] The 1st type start opening processing is ended. When the pachinko ball has not won a prize of the 1st type start opening 520 (NO of Step S200), or when the number of reserved balls reaches upper limit (YES of Step S202), the 1st type start opening processing is ended without doing anything.

[0058]By the various random numbers which are read at the above-mentioned step S206, and are memorized to RAM114. For example, random number RH for a great success judging used in order to distinguish whether it is great success, Random number RI for foreground patterns used since the foreground pattern displayed on the special pattern display for indication 512 is specified when distinguished from great success by the random number RH for a great success judging. The reach pattern random number RK used since a display pattern after becoming reach according to the reach pattern displayed on the random number RJ for background figure handles used since a background figure handle is similarly specified, and the special pattern display for indication 512 until it suspends change is specified, There are the random number RL for probability variations etc. which are used in order to distinguish whether a probability variation is performed after being becoming it a great success.

[0059]The pattern fluctuation processing shown in drawing 17 realizes pattern fluctuation performed with the special pattern display for indication 512 as well as the pattern fluctuation processing shown in drawing 5. It is distinguished first whether the number of reserved balls is a positive number. [Step S210]. When the number of reserved balls is a positive number, while reading (YES) and random number RH for a great success judging memorized at the above-mentioned step S206 [Step S212] The number of reserved balls is subtracted in preparation for next processing. [Step S214]. In this way, LED of the reserved ball lamp 518 is turned on according to the subtracted number of reserved balls, and fluctuation displaying processing is performed. [Step S216]. The concrete contents of this fluctuation displaying processing are explained referring to drawing 18.

[0060]The fluctuation displaying processing shown in drawing 18 is equivalent to the 1st lottery and the 2nd lottery, and realizes the display from the start of pattern fluctuation to a stop. It is distinguished first whether it is "great success." [Step S230]. It distinguishes by whether random number RH for a great success judging read at the above-mentioned step S212 was specifically in agreement with the great success value. About the number of a great success value, it is the same as that of Embodiment 1. It is reading about random number RI for foreground patterns and the random number RJ for background figure handles which were memorized at Step S206 of (YES) and drawing 16 when distinguished from "great success." [Step S232] The pattern which is due to be decided eventually according to the random number RI for foreground patterns concerned or the random number RJ for background figure handles is determined. Then, pattern fluctuation is started almost simultaneous about a foreground pattern and a background figure handle. [Step S234] Reach processing is performed after a while after a fluctuation start. [Step S236]. Since the concrete contents of reach processing are the same as that of Embodiment 1, a graphic display and

explanation are omitted. In this way, after finishing reach processing, it progresses to the below-mentioned step S238. When distinguished from a "blank" at Step S230, in order to display (NO) and a blank pattern on the special pattern display for indication 512 on the other hand, after shifting and reading pattern data from RAM114 [Step S250] It is distinguished whether a reach pattern is included in the blank pattern concerned. [Step S252] .The reach pattern is the same as that of Embodiment 1 except for the point that patterns differ. Supposing it includes a reach pattern (YES), it will progress to Step S234 later mentioned since it becomes reach on the way, although it becomes a "blank" eventually. If a reach pattern is not included, pattern fluctuation is started almost simultaneous about a foreground pattern and a background figure handle like (NO) and the above-mentioned step S234. [Step S254] It separates after a while after a fluctuation start, and stops in a pattern. [Step S256] It progresses to the below-mentioned step S238.

[0061]After finishing reach processing, it is distinguished whether it is a probability variation. [Step S238] .Specifically, the random number RL for probability variations memorized at Step S206 of drawing 16 distinguishes by whether it was in agreement with a specified value. When it distinguishes from a probability variation, after performing (YES) and probability variation processing [Step S240] Fluctuation displaying processing is ended. Since it is the same as that of Embodiment 1 about the contents of probability variation processing, a graphic display and explanation are omitted. a time of on the other hand not distinguishing from a probability variation in Step S238 — (NO) — fluctuation displaying processing is ended as it is. In the above-mentioned step S234, S236, S254, and S256, a display command corresponding, respectively is sent to the display control board 200, and it realizes.

[0062]After finishing fluctuation displaying processing, it returns to drawing 17 and it is distinguished whether it is great success. [Step S218] .With the reliable pachinko machine 500, it is distinguished whether it is "great success" based on the above-mentioned random number RH for success decisions that it is hard to be influenced by an extraneous noise etc. A special pattern actually displayed on the special pattern display for indication 512 if needed may distinguish whether it is great success by whether it is in agreement with a big hit pattern. If it "great success" Becomes (YES), after performing great success processing [Step S220] Pattern fluctuation processing is ended. This great success processing performs big hit games, such as only fixed time (for example, for 30 seconds) opening the lid 564 of the big prize port 524 wide, for example, and paying out awarded balls according to the number of pachinko balls which won a prize. if it "blank" becomes by distinction of Step S218 on the other hand — (NO) — pattern fluctuation processing is ended as it is.

[0063]Next, an example which performs processing shown in drawing 16 — drawing 18, and displays a foreground pattern and a background figure handle on the special pattern display for indication 512 is explained, referring to drawing 19 and drawing 20. This example is an example of a case which is "becoming it a great success" in combination of a foreground pattern and a background figure handle, and omits a graphic display and explanation about a case of a "blank" by which it is generated. Since it is easy, it is assumed that from a pattern "1" of a number to "9" is used for a special pattern, and a pattern of a character is used for a privilege pattern. Animation displayed as an ornament pattern is omitted in order to simplify explanation and a graphic display.

[0064]If a pachinko ball wins a prize of the 1st type start opening 520, as shown in drawing 19 (A), based on a variation pattern, a special pattern and a privilege pattern will start pattern fluctuation almost simultaneous [Step S234 of drawing 18]. If it becomes reach by a special pattern after that, as shown in drawing 19 (B), the left figures 570 and the right figures 574 will stop [Step S236 of drawing 18]. In both the examples of drawing 19 (B), since the left figures 570 and the right figures 574 of the middle are in agreement in the pattern "7" of a number, the leech line 576 is displayed with the character "reach." Then, since the same pattern "7" as the horizontal single tier of the middle gathered as the middle figures 572 stopped and it was shown in drawing 19 (C), the lottery result by a special pattern is "great success." Changing a privilege pattern is continued and it stops

after that also in the meantime. Here, as shown in drawing 20 (A), the special pattern 578 (the left figures 570, the middle figures 572, right figures 574) and the privilege pattern 580 have a special pattern and a privilege pattern in the relation between a foreground and a background to the special pattern display for indication 512. Therefore, when a game person etc. look at the special pattern 578 and the privilege pattern 580 from the transverse plane of the special pattern display for indication 512, it superimposes and seems to be shown in drawing 20 (B). In the example of drawing 20 (B), since both the special pattern 578 and the privilege pattern 580 are overlapped in the pattern of a character with the relation of a graphic display, it is hard to distinguish, but in the actual pachinko machine 500, it can distinguish easily by changing color, a pattern, etc. of the special pattern 578 or the privilege pattern 580.

[0065]And the lottery result by a special pattern is "great success", and if a privilege pattern is also displayed as "great success", the privilege of big hit games will be given to a game person [Step S220 of drawing 17]. In this way, the game person can play a game with the hope that a privilege may be able to be acquired, with the combination of a foreground pattern and a background figure handle. Since the foreground pattern and the background figure handle were superimposed and displayed on the special pattern display for indication 512, if this part displayed by superimposing is seen, the game person can distinguish easily whether a privilege is given or not. The lottery result by a special pattern is "great success", and when a privilege pattern is displayed as a "blank", the privilege of big hit games is not given to a game person. On the contrary, even if the lottery result by a special pattern is a "blank", a privilege pattern gives a game person the privilege of big hit games, when the character of "great success" is displayed. A privilege pattern gives a game person the privilege of a probability variation, when the character of "probability-changing great success" is displayed. And the time of "great success" The lottery result by a special pattern becoming and the privilege that a privilege pattern corresponds separately from the time of the character of "great success" being displayed may be given to a game person.

[0066]According to the above-mentioned Embodiment 2, an effect taken below can be acquired.

(1) It corresponds to Claim 4, and a privilege will be given to a game person, if it stops in combination of a specified pattern after changing combination of the special pattern 578 (foreground pattern) and the privilege pattern 580 (background figure handle) [Step S220 of drawing 17].

Therefore, the game person can play a game with a hope that a privilege may be able to be acquired, with combination of the special pattern 578 and the privilege pattern 580.

(2) Correspond to Claim 5, superimpose the special pattern 578 and the privilege pattern 580, and display on the special pattern display for indication 512 (display) [refer to drawing 20]. If a part (field) displayed by superimposing is seen, it understands whether combination of the special pattern 578 and the privilege pattern 580 turned into combination of a specified pattern at this time. Therefore, the game person can distinguish easily whether a privilege is given or not only by seeing the part concerned.

[0067]In the above-mentioned Embodiment 2, the privilege pattern was used as a background figure handle, using a special pattern as a foreground pattern. It may replace with this form and may carry out with the form shown below.

(1) A special pattern may be used as a background figure handle, using a privilege pattern as a foreground pattern. Even in this case, the game person can play a game with the hope that a privilege may be able to be acquired, irrespective of a privilege pattern according to a special pattern.

(2) A special pattern may be used for both a foreground pattern and a background figure handle. In this case, it corresponds to Claim 2 and a privilege may be given with the privilege pattern as a background figure handle irrespective of what happened to the privilege pattern as a foreground pattern. Therefore, the game person can play a game with the hope that a privilege may be able to be acquired, with the privilege pattern as a background figure handle. This is the same even when a privilege pattern is used for both a foreground pattern and a background figure handle.

[0068][Other embodiments] In the pachinko machine 10,500 (game machine) mentioned above, it is not limited for other structure, form, arrangement, number, operating conditions, etc. of a portion to the above-mentioned embodiment. For example, each of following forms adapting the above-mentioned embodiment can also be carried out.

(1) According to each above-mentioned embodiment, this invention was applied to the pachinko machine 10,500. It can replace with this form and this invention can be applied also like what is other game machines (for example, a pachislot machine, a ball arranging machine, a mahjong ball game machine, a video game machine, etc.) other than a pachinko machine, and was provided with the display which can display a foreground pattern and a background figure handle, being concerned — others — even if it is a game machine, the game person can play a game with the hope which expects a privilege not only about a foreground pattern but about a background figure handle.

[0069](2) In the above-mentioned Embodiment 1, the pattern was used for the foreground pattern and the special pattern was usually used for the background figure handle. Similarly, by Embodiment 2, the special pattern was used for the foreground pattern and the privilege pattern was used for the background figure handle. It replaces with this form, and if a prescribed condition is satisfied or a game person's intention is detected, it may constitute so that the pattern used for a foreground pattern and/or a background figure handle can be changed. As formation of a prescribed condition, the time of a foreground pattern and/or a background figure handle stopping by a prescribed pattern, for example after change, the time of a pachinko ball winning a prize / passing in big hit games at predetermined regions (the pattern fluctuation start opening 66, the 1st type start opening 520, etc.), etc. correspond. As a means to detect a game person's intention, for example not only in the manual operation button 50,538, Not only contact sensors (for example, a switch, a touch panel, a pressure sensor, etc.) but noncontact sensors (for example, a photosensor, an infrared sensor, etc.) or recognition systems (a voice recognition system, an image recognition system, etc.) etc. correspond. Since the pattern which can hold expectations that a privilege may be able to be acquired will change if it enables it to change a foreground pattern and the pattern used for a background figure handle, a game person's hope also increases.

[0070](3) In Embodiment 1, the time of a pachinko ball winning a prize of the pattern fluctuation start opening 66 in the pachinko machine 10, and winning a prize of the 1st type start opening 520 or the lower start opening 558 in Embodiment 2, respectively was considered as formation of necessary conditions [Step S10 of drawing 4, and Step S200 of drawing 17], when it replaces with this form (or — adding) and the number of reserved balls reaches upper limit among high probabilities and reduction of working hours according to the kind of game machine, time, a game position, etc. (what is called inside of full), a game ball wins a prize or passes to a predetermined region. It is good also considering the time of the fixed time in big hit games and after the end of big hit games and opening and closing members (movable wing pieces, such as a lid of a prize port, a shuttlecock, what is called a tulip etc.) being open, etc. as formation of necessary conditions. Since the opportunity for change and a stop of a background figure handle to be performed will also increase if it carries out like this, the hope of the game person that a privilege may be able to be acquired also increases.

[0071](4) At Embodiment 1, with the pachinko machine 10, when a pachinko ball won a prize of the pattern fluctuation start opening 66, fluctuation displaying processing for special patterns equivalent to the 1st lottery [refer to drawing 7] which is usually equivalent to fluctuation displaying processing for patterns [refer to drawing 6] and the 2nd lottery was performed. Similarly, in Embodiment 2, when a pachinko ball won a prize of the 1st type start opening 520 or the lower start opening 558, respectively, fluctuation displaying processing [refer to drawing 18] equivalent to the 1st lottery and the 2nd lottery was performed. fluctuation displaying processing which replaces with this form (or — adding) and corresponds to it according to formation of different necessary conditions (changing a start opening, a gate, etc. through which it wins for which a prize or passes) may be performed. For example, in Embodiment 1, if a pattern fluctuation start opening with the separate pattern

fluctuation start opening 66 is established and a pachinko ball wins a prize of the pattern fluctuation start opening 66, fluctuation displaying processing for patterns will usually be performed, and if a pachinko ball wins a prize of a separate pattern fluctuation start opening, fluctuation displaying processing for special patterns will be performed. In this case, even if it is, the game person can play a game with a hope which expects a privilege not only about a foreground pattern but about a background figure handle.

[0072](5) At the above-mentioned Embodiment 1, the privilege pattern 580 of 1 was used for two or more special patterns (the left figures 90, the middle figures 92, right figures 94) as a background figure handle by Embodiment 2, respectively (refer to drawing 13 and drawing 20). It may replace with this form and two or more privilege patterns may be used for a special pattern of 1 by Embodiment 2 by Embodiment 1, respectively. In this case, even if it is, the same effect as each embodiment can be acquired. This is the same even when a background figure handle is made into other patterns (usually a pattern, an ornament pattern, etc.). The same can be said for a foreground pattern which becomes a background figure handle and combination.

[0073](6) According to the above-mentioned Embodiment 2, a privilege was given to a game person, when it stopped in combination of a specified pattern after changing combination of the special pattern 578 (foreground pattern) and the privilege pattern 580 (background figure handle) [Step S220 of drawing 17]. That is, a privilege was given to a game person when combination of a pattern displayed just before or after two classes, respectively turned into combination of a specified pattern, as shown in drawing 20 (A). It replaces with this form, and a privilege may be given to a game person when combination of a pattern displayed just before or after three or more classes' multiple layers, respectively turns into combination of a specified pattern. A hierarchy number is changed according to a game position, or, in addition, it is good to change a size of a privilege according to the hierarchy number concerned. If it carries out like this, a variation will spread about combination of a pattern.

[0074](7) Although the foreground pattern and the background figure handle were superimposed and displayed in each above-mentioned embodiment (refer to drawing 13 and drawing 20), a foreground pattern and a background figure handle may be displayed by turns, or it may arrange and display so that it may not superimpose. Even if it is these display modes, a game person may recognize a foreground pattern and a background figure handle easily, and may be able to distinguish simply whether a privilege is given or not. This is the same even when it is considered as multiple layers in the above (6). Here, it explains, referring to drawing 21 using the same mark as Embodiment 1 for the example put in order and displayed without usually superimposing a pattern (foreground pattern) and a special pattern (background figure handle). The pattern is displayed on the pattern display 22 so that drawing 21 (A) and drawing 21 (B) may understand depth perception for each in an oblique-projection drawing technique, perspective, etc. Signs that a character appreciates pictures in the example of drawing 21 (A) are imagined. To front sides, it is backward and the special pattern (the left figures 90, the middle figures 92, right figures 94) for which the pictures for which the bear on a par with a horizontal single tier was imitated, and which usually display a pattern (the left figures 80, the middle figures 82, right figures 84), are applied and are located in a line with a wall at the back side were imitated is displayed. In the example of drawing 21 (B), the automobile rally performed in grand nature is imagined, and the special pattern for which the clouds for which the car on a par with a horizontal single tier was imitated, and which usually display a pattern and float in empty at the back side were imitated is displayed on front sides. The common pattern and special pattern which are shown in drawing 21 (A) and drawing 21 (B) can recognize pattern order visually. That is, a pattern is usually recognized to be a foreground pattern and those who looked at the pattern display 22 recognize the special pattern which is located in the front sides in a viewing area and which is located in the back side to be a background figure handle. Thus, a foreground pattern and a background figure handle are discriminable by displaying a pattern by a drawing technique with depth perception. Therefore, even if it arranges and displays without usually superimposing a pattern

(foreground pattern) and a special pattern (background figure handle), the same effect as each above-mentioned embodiment can be acquired.

[0075](8) By repeating the procedure of transmitting the data (for example, command block 300) for every screen to the display control board 200 from the main control substrate 100, in the above-mentioned embodiment, This invention was applied to the pachinko machine 10 which performs pattern fluctuation based on a pattern display pattern, etc. (see drawing 6, drawing 7, etc.).

Whenever it replaces with this form and performs pattern fluctuation etc., it is also possible to apply this invention to the pachinko machine which transmits the data of a pattern display pattern to the display control board 200 only once from the main control substrate 100. When a game person operates the manual operation button 50, the main control substrate 100 transmits the data of a pattern display pattern to the display control board 200 only once again, and continues pattern fluctuation etc. That is, when a game person operates the manual operation button 50, new pattern fluctuation etc. are begun. In this case, the data volume transmitted to the display control board 200 from the main control substrate 100 decreases substantially for every pattern display pattern from every screen. Therefore, since design man days, such as a program required for the main control substrate 100, can be reduced substantially, the cost of a pachinko machine can also be reduced. Since new pattern fluctuation etc. start when you wish with a game person's intention, the hope which expects a privilege is further maintainable.

[Translation done.]

*** NOTICES ***

JPO and INPI are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

Drawing 1It is a figure showing the outline of this invention typically.

Drawing 2It is a front view showing the appearance of the 1st sort pachinko machine.

Drawing 3It is a block diagram showing the outline composition of a main control substrate and a display control board.

Drawing 4It is a flow chart which shows the contents of start opening processing.

Drawing 5It is a flow chart which shows the contents of pattern fluctuation processing.

Drawing 6It is a flow chart which usually shows the contents of the fluctuation displaying processing for patterns.

Drawing 7It is a flow chart which shows the contents of the fluctuation displaying processing for special patterns.

Drawing 8It is a flow chart which shows the contents of privilege executive operation.

Drawing 9It is a block diagram showing the example of composition of a command block.

Drawing 10It is a flow chart which shows the contents of pattern display processing.

Drawing 11It is a figure usually showing the example of array constitution of a pattern with a special pattern.

Drawing 12It is a figure showing the display example of a pattern display.

Drawing 13It is a figure showing the display example of the pattern display following drawing 13.

Drawing 14It is a front view showing the appearance of the 1st sort pachinko machine.

Drawing 15It is a block diagram showing the outline composition of a main control substrate and a display control board.

Drawing 16It is a flow chart which shows the contents of the 1st type start opening processing.

Drawing 17It is a flow chart which shows the contents of pattern fluctuation processing.

Drawing 18It is a flow chart which shows the contents of fluctuation displaying processing.

Drawing 19It is a figure showing the display example of a special pattern display for indication.

Drawing 20It is a figure showing the display example of a special pattern display for indication.

Drawing 21It is a figure showing the display example of a special pattern display for indication.

[Explanations of letters or numerals]

2 Game control part

4 Display control part

6 Display

10 Pachinko machine (game machine)

22 Pattern display (display)

64 Start opening sensor

66 Pattern fluctuation start opening

80, 82, and 84 Common pattern (foreground pattern)

90, 92, and 94 Special pattern (background figure handle)

100 Main control substrate (game control part)
200 Display control board (display control part)
500 Pachinko machine (game machine)
512 Special pattern display for indication (display)
520 The 1st type start opening
550,556 Start opening sensor
558 Lower start opening
570,572,574 Special pattern (foreground pattern)
580 Privilege pattern (background figure handle)

[Translation done.]

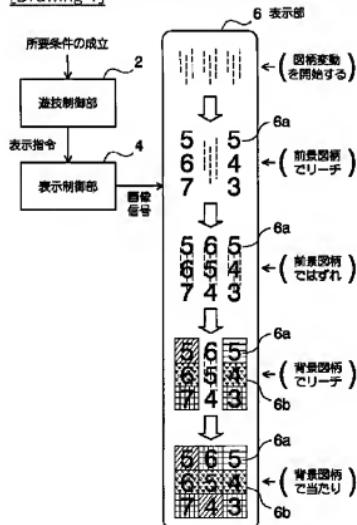
* NOTICES *

JPO and INPI are not responsible for any damages caused by the use of this translation.

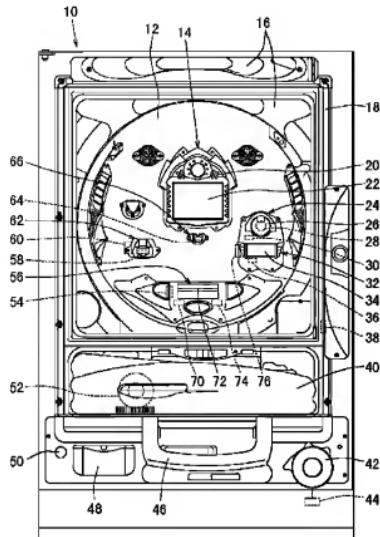
1. This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
3. In the drawings, any words are not translated.

DRAWINGS

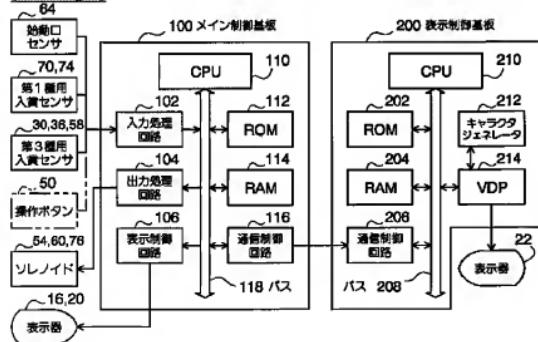
[Drawing 1]



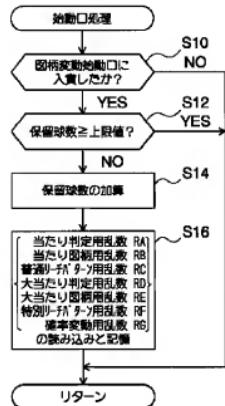
[Drawing 2]



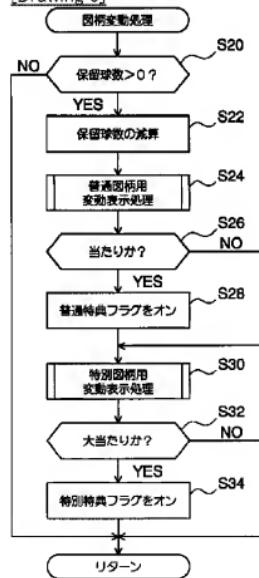
[Drawing 3]



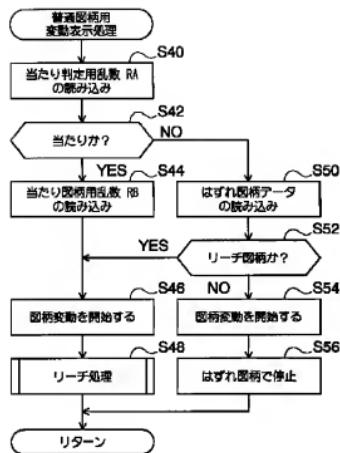
[Drawing 4]



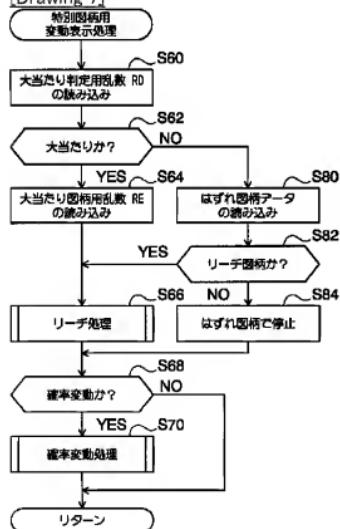
[Drawing 5]



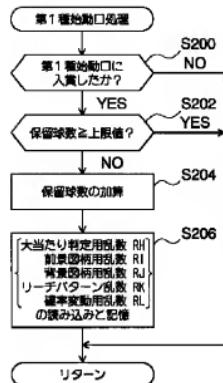
[Drawing 6]



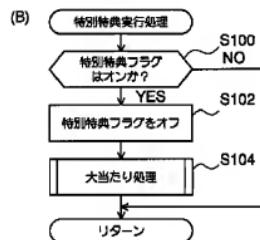
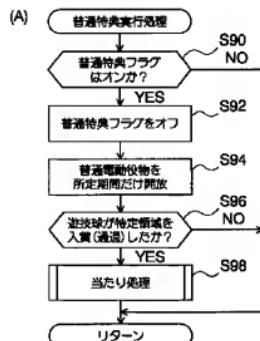
[Drawing 7]



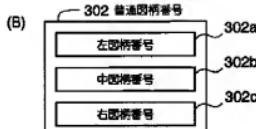
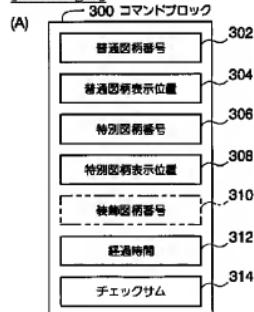
[Drawing 16]



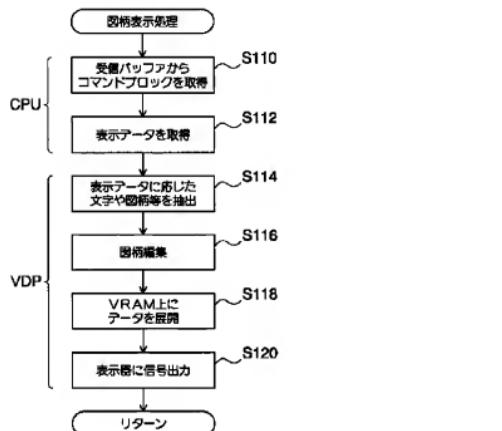
[Drawing 8]



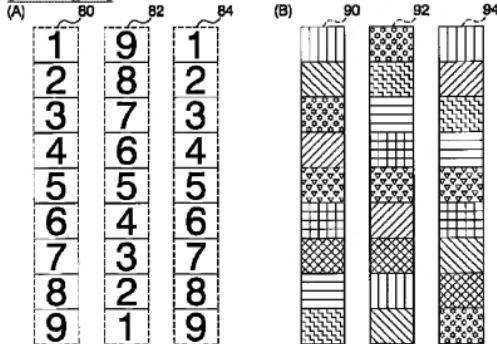
[Drawing 9]



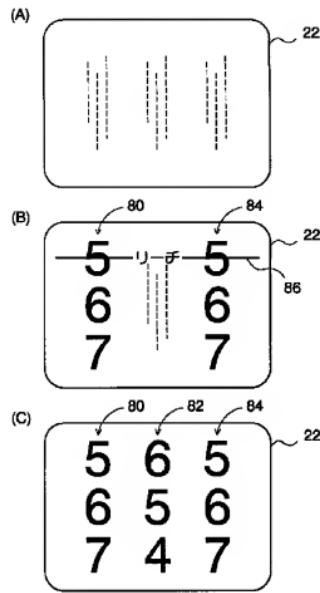
[Drawing 10]



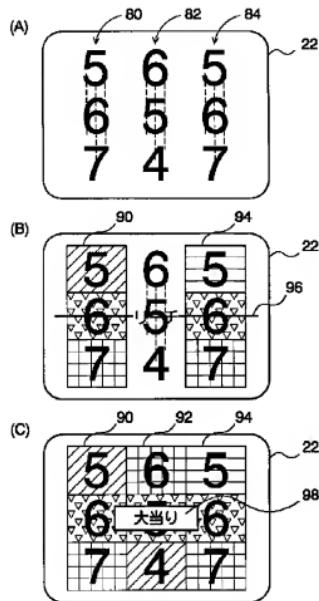
[Drawing 11]



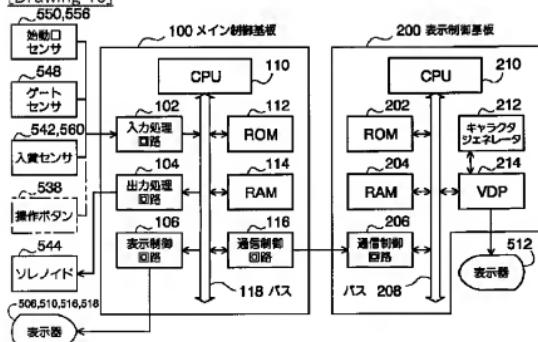
[Drawing 12]



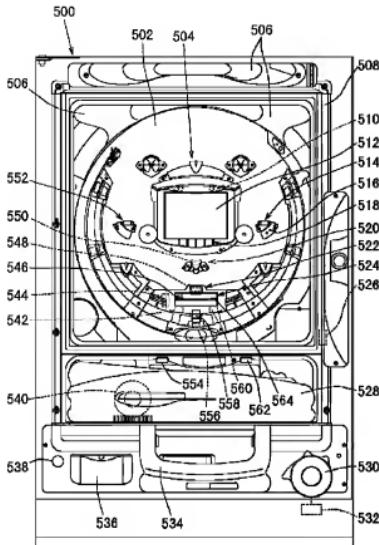
[Drawing 13]



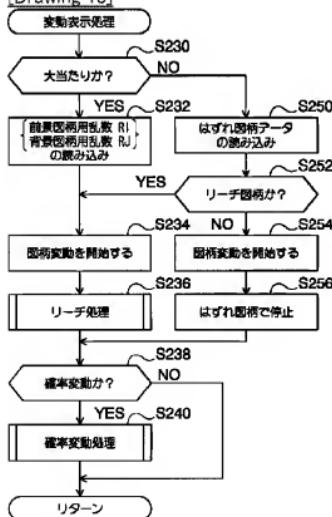
[Drawing 15]



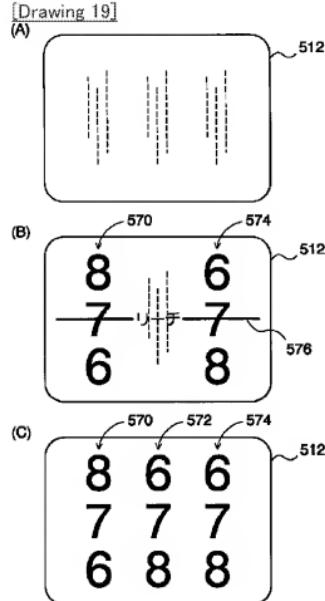
[Drawing 14]



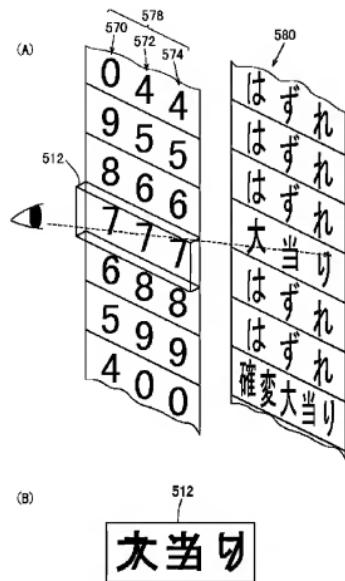
[Drawing 18]



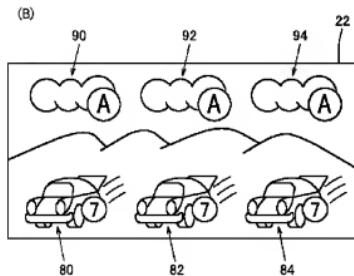
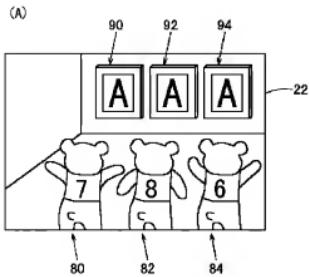
[Drawing 19]



[Drawing 20]



[Drawing 21]



[Translation done.]

*** NOTICES ***

JPO and INPIT are not responsible for any damages caused by the use of this translation.

- 1.This document has been translated by computer. So the translation may not reflect the original precisely.
- 2.**** shows the word which can not be translated.
- 3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]

[Claim 1]A game machine comprising:

A foreground pattern used for the 1st lottery.

A display which can display a background figure handle which is located behind the foreground pattern and used for the 2nd lottery.

A game control part which will give a game person the 1st privilege if said foreground pattern currently changed by said 1st lottery stops by a specified pattern, and will give a game person the 2nd privilege if said background figure handle currently changed by said 2nd lottery stops by a prescribed pattern.

[Claim 2]A game machine which made the 1st privilege and the 2nd privilege the same kind in a game machine indicated to Claim 1.

[Claim 3]A game machine which will suspend change of said foreground pattern after the stop concerned if said background figure handle which would suspend change of a background figure handle or will be changed after the stop concerned if a foreground pattern currently changed stops in patterns other than a specified pattern in a game machine indicated to Claim 1 or 2 stops in patterns other than a prescribed pattern.

[Claim 4]A game machine comprising:

A display which can display a foreground pattern used for a lottery, and a background figure handle. A game control part which will give a game person a privilege if said foreground pattern currently changed by said lottery and said background figure handle stop in combination of a specified pattern.

[Claim 5]A game machine which superimposes a foreground pattern and a background figure handle and is displayed on a display in a game machine indicated in any 1 clause of 4 from Claim 1.

[Translation done.]

(19)日本特許庁 (J P)

(12) 公開特許公報 (A)

(11)特許出願公開番号

特開2001-58046

(P2001-58046A)

(43)公開日 平成13年3月6日(2001.3.6)

(51)Int.Cl.⁷
A 6 3 F 7/02識別記号
3 2 0F I
A 6 3 F 7/02ヤード¹(参考)
3 2 0 2 C 0 8 8

審査請求 未請求 請求項の数 5 O.L. (全 22 頁)

(21)出願番号

特願平11-236024

(71)出願人 000148922

株式会社大一商会

愛知県名古屋市中村区鶴舞町1丁目22番地

(72)発明者 市原 尚明

愛知県西春日井郡西春町大字神村字西ノ川
1番地 株式会社大一商会内

(73)発明者 宮嶋 和人

愛知県西春日井郡西春町大字神村字西ノ川
1番地 株式会社大一商会内

(74)代理人 100064344

弁理士 岡田 英彦 (外3名)

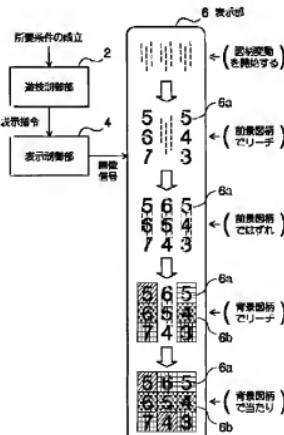
F ターム(参考) 20058 AA34 AA35 AA39

(54)【発明の名称】 遊戯機

(57)【要約】

【課題】 遊戯者が前景図柄だけでなく背景図柄についても特典を期待する期待感を持って遊戯することができるようにする。

【解決手段】 パチンコ機等の遊戯機は、所要条件が成立すると所要の表示を指令する表示指令を出し遊戯者に特典を与える遊戯制御部2や、出力された表示指令を受けて表示部6に前景図柄と背景図柄を表示可能な表示制御部4等を有する。前景図柄に普通図柄6aを、背景図柄に特別図柄6bを表示部6に表示する。図の例では変動している普通図柄6aがまず表示部で停止したが、特別図柄6bが大当たり図柄で停止したので「大当たり」となり、遊戯制御部2は当たり遊戯を始める。遊戯者は前景図柄としての普通図柄6aによって第1特典が与えられ、背景図柄としての特別図柄6bによって第2特典が与えられる。よって、遊戯者は前景図柄と背景図柄の両方について特典を期待する期待感を持って遊戯することができる。



【特許請求の範囲】

【請求項1】 第1抽選に用いる前景図柄と、その前景図柄の後方に位置し第2抽選に用いる背景図柄とを表示可能な表示部と、
前記第1抽選により変動している前記前景図柄が特定図柄で停止すると遊技者に第1特典を与え、前記第2抽選により変動している前記背景図柄が所定図柄で停止すると遊技者に第2特典を与える遊技制御部とを有する遊技機。

【請求項2】 請求項1に記載した遊技機において、第1特典と第2特典と同じ種類にした遊技機。

【請求項3】 請求項1または2に記載した遊技機において、
変動している前景図柄が特定図柄以外の図柄で停止すると該停止後に背景図柄の変動を停止し、あるいは変動している前記背景図柄が所定図柄以外の図柄で停止すると該停止後に前記前景図柄の変動を停止する遊技機。

【請求項4】 抽選に用いる前景図柄と背景図柄を表示可能な表示部と、
前記抽選により変動している前記前景図柄と前記背景図柄とが特定図柄の組み合わせで停止すると遊技者に特典を与える遊技制御部とを有する遊技機。

【請求項5】 請求項1から4のいずれか一項に記載した遊技機において、
前景図柄と背景図柄を重畳して表示部に表示する遊技機。

【発明の詳細な説明】

【0001】

【発明の属する技術分野】 本発明は前景図柄と背景図柄とを表示可能な表示部を備えた遊技機に関する。

【0002】

【従来の技術】 遊技機の一つであるバチンコ機の多くは、前景図柄と背景図柄とを表示可能な表示器を備える。前景図柄には、例えば変動と停止を行う特別図柄等が該当する。背景図柄は前景図柄の背景側に表示される装飾用の図柄であって、例えばキャラクタ等が該当する。前景図柄としての特別図柄は、例えば左側、中側、右側の三つの変動領域で表示される。当該特別図柄は遊技球が所定領域（例えば始動口やゲート等）に入賞したり通過すると変動を始め、その後に停止する。特別図柄に係る図柄の変動（以下「図柄変動」と呼ぶ。）を開始してから停止するまでの間は変動パターンに従って変動を行い、通常一台のバチンコ機では複数の表示パターンを用意する。どの変動パターンに従って変動を行うかは、乱数等に応じて決定している。

【0003】 従来のバチンコ機の中には、前景図柄として上記特別図柄のほかに普通図柄を表示可能な表示器を備えたものがあった。当該バチンコ機における表示器の中央部に表示する特別図柄はバチンコ球が始動口に入賞すると変動し始め、その後に大当たり図柄（例えば図柄

「777」）で停止すると大当たり遊技を行なった。同様に、当該表示器の左下部に表示する普通図柄はバチンコ球がゲートを通過すると変動し始め、その後に当たり図柄（例えば図柄「7」）で停止すると始動口に備えた開閉部材（いわゆるチューリップ）を一時的に開けた。

【0004】

【発明が解決しようとする課題】 しかし、従来のバチンコ機では前景図柄と背景図柄についても何らの関係を持たせてなく、しかも遊技者が特典を期待するのは前景図柄のうち特別図柄と普通図柄だけであった。本発明はこのような点に鑑みてなされたものであり、前景図柄だけなく背景図柄についても遊技者が特典を期待する期待感を持って遊技することができるようになることを目的とする。

【0005】

【課題を解決するための手段】 課題を解決するための手段1は、請求項1に記載した通りである。ここで、請求項1に記載した用語については以下のようによく解釈する。当該解釈は他の請求項および発明の詳細な説明についても同様である。

(1) 「第1抽選」と「第2抽選」はほぼ同一の抽選であってもよく、異なる抽選であってもよい。

(2) 「前景図柄」には表示部に表示可能なすべての図柄であって、抽選に用いる図柄（特定図柄、特別図柄や普通図柄等）を含む。例えば、文字（英数字、漢字、仮名等）、図形、記号、絵柄等の図柄に限らず、風景や模様、キャラクタ等の静止画やアニメーション等の動画、あるいは映像などを該当する。さらに一種類の図柄のみであってもよく、複数種類の図柄を任意に組み合わせてもよい。

(3) 「後方に位置し」とは視覚的に後側に見える位置にあることを意味する。例えば、複数の図柄を重疊して表示したときに後側の図柄を認識できる場合や、斜投影画法や透視画法等によって三次元空間を二次元的に表示した場合において図柄の位置関係から後側の図柄を認識できる場合などが該当する。

(4) 「背景図柄」は所定図柄を含み、前景図柄の後方に位置する点を除いて前景図柄で用いる図柄と同様の図柄を用いることが可能である。前景図柄が表示されない領域では、背景図柄を前景図柄と同じように表示してもよい。前景図柄と背景図柄で用いる図柄の数、種類、表示位置等はほぼ同じであってもよく、異なってもよい。

(5) 「表示部」は一の表示器（あるいは表示装置）について図柄を表示可能な部位の全部であってもよく、当該部位の一部であってもよい。さらには一の表示器に限らず、複数の表示器で構成してもよい。

(6) 「停止」には完全な停止のみならず、一時停止も含む。また「停止」の状態には静止する場合のみなら

す、基準位置を中心として任意の方向に任意の範囲で動く場合をも含む。

(7) 「特典」は遊技者にとって有利な遊技状態を意味し、例えば大当たり遊技や時短(図柄の変動期間を短縮する態様)、確率変動(大当たりになる確率を変更する態様)などの種類がある。当該特典は遊技中に種類を固定してもよく、あるタイミングで種類を変化させてよい。また、「第1特典」と「第2特典」の関係は、同一の特典であってもよく、異なる特典であってもよい。

【0006】当該手段1によれば、遊技制御部は第1抽選により変動している前景図柄が特定図柄で停止する遊技者に第1特典を与える、第2抽選により変動している背景図柄が所定図柄で停止すると遊技者に第2特典を与える。よって、遊技者は前景図柄だけでなく背景図柄についても特典を期待する期待感を持って遊技することができる。

【0007】

【課題を解決するための手段2】課題を解決するための手段2は、請求項2に記載した通りである。当該手段2によれば、特に第1特典と第2特典と同じ種類にした。前景図柄と背景図柄のいずれについても同じ種類の特典が与えられるので、遊技者はいずれか少なくとも一方の図柄によって与えられる特典を期待する期待感を持って遊技することができる。

【0008】

【課題を解決するための手段3】課題を解決するための手段3は、請求項3に記載した通りである。当該手段3によれば、変動している前景図柄が特定図柄以外の図柄で停止すると当該停止後に背景図柄の変動を停止するか、あるいは変動している背景図柄が所定図柄以外の図柄で停止すると当該停止後に前景図柄の変動を停止する。こうすると、遊技者は前景図柄と背景図柄のいずれか一方の図柄が停止して特典が与えられなくなると、他方の図柄が停止すると特典が与えられる可能性がある。よって、遊技者は第1特典と第2特典の少なくとも一方によって与えられる特典を期待する期待感を持って遊技することができる。

【0009】

【課題を解決するための手段4】課題を解決するための手段4は、請求項4に記載した通りである。当該手段4によれば、変動している前景図柄と背景図柄が特定図柄の組み合わせで停止すると、遊技制御部が遊技者に特典を与える。よって、遊技者は前景図柄と背景図柄の組み合わせによって与えられる特典を期待する期待感を持って遊技することができる。

【0010】

【課題を解決するための手段5】課題を解決するための手段5は、請求項5に記載した通りである。ここで、請求項5に記載した用語の「前景図柄と背景図柄を重疊して」には、前景図柄と背景図柄のほぼ全部が重疊する場

合と、前景図柄と背景図柄の一部が重疊する場合がある。当該解釈は他の請求項および発明の詳細な説明についても同様である。

【0011】当該手段5によれば、表示部に前景図柄と背景図柄を重疊して表示する。このとき前景図柄と背景図柄でそれぞれ特典が与えられる図柄になったか否かは、重疊して表示された部位(領域)を見れば分かる。よって、遊技者は該部位を見ただけで特典が与えられるか否かを簡単に判別することができる。

【0012】

【発明の実施の形態】以下、本発明における実施の形態を図面に基づいて説明する。

【実施の形態1】実施の形態1は遊技機の一つである第1種パンチ機に本発明を適用した例であって、前景図柄と背景図柄は単独で遊技者に特典を与える態様である。本実施の形態1は、図1～図14を参照しながら説明する。

【0013】はじめに、本発明の概要を模式的に示した図1を参照しながら説明する。図1に示す遊技機は、所要条件が成立すると所要の表示を指示する表示指令を出し遊技者に特典を与える遊技制御部2や、出力された表示指令を受けて表示部6に前景図柄と背景図柄を表示可能な表示制御部4等を有する。なお、前景図柄を普通図柄6aとし、その普通図柄6aの後に用いる背景図柄を特別図柄6bとしている。ここで説明を簡単にするために、普通図柄6aを数字の0の図柄とし、特別図柄6bを模様のみの図柄としている。また「所要条件」は遊技機の種類、日時、遊技状態等に応じて適切に設定可能な条件を意味し、以下同様である。例えば、高確率中や、時短中、保留球数が上限値に達したとき(いわゆる満タン中)、遊技球が所定領域に入賞または通過すること、大当たり遊技中、大当たり遊技終了後の一定期間、開閉部材(入賞口の蓋や羽根、いわゆるチャーリーフ等の可動翼片等)が開いているとき等が該当する。当該所要条件は遊技中に固定してもよく、あるタイミングで変化させてもよい。

【0014】表示制御部4が行う画像編集によって表示部6に表示される前景図柄と背景図柄は、例えば次のようにになる。すなわち普通図柄6aと特別図柄6bとを変動し始め、普通図柄6aの上段横ライン上に図柄「5」でリーチに達したが、最終的にはゾロ目の図柄「555」にならず「はずれ」している。その後、特別図柄6bの中段横ライン上に逆三角形(すなわち「△」の形状)の散点模様からなる図柄でリーチに達し、最終的にも当該模様の図柄で「大当たり」となっている。なお普通図柄6aで「はずれ」となったとき、特別図柄6bで「大当たり」になるとは限らず「はずれ」になる場合が比較的多い。このとき遊技制御部2は大当たり遊技を始めて遊技者に第2特典を与える。同様に、普通図柄6aが例えばゾロ目の図柄「555」で当たりになると、遊技制

御部2は当たり遊技を始めて遊技者に第1特典を与える。このように、遊技者は前景図柄としての普通図柄6aによって第1特典が与えられ、背景図柄としての特別図柄6bによって第2特典が与えられる可能性がある。第1特典と第2特典は種類や大きさ等が同一であってもよく、いずれか少なくとも一つが異なっていてもよい。よって、遊技者は前景図柄だけでなく背景図柄についても、すなわち両方の図柄について特典を期待する期待感を持って遊技することができる。

【0015】ここで、以下に示す前景図柄（普通図柄6a）と背景図柄（特別図柄6b）の様態を実現することもできる。これらの態様であっても、遊技者は特典を獲得できるかもしれないという期待感を持って遊技することができる。

(1) 前景図柄を普通図柄6aとし背景図柄を特別図柄6bとしたが、前景図柄および背景図柄をともに特別図柄6bとしてもよい。こうすれば前景図柄としての特別図柄6bではずれても、背景図柄としての前景図柄で当たりになることもある。このことは、前景図柄および背景図柄をともに普通図柄6aとした場合や、前景図柄を特別図柄6bとし背景図柄を普通図柄6aとした場合でも同様である。よって遊技者は2回のチャンスが与えられるので、当たり等による特典を得る機会が高まる。

(2) 前景図柄と背景図柄の組み合わせが特定図柄の組み合わせになったとき、遊技者は特典を与えるように構成してもよい。このときの前景図柄と背景図柄は、いずれも普通図柄6aであってもよく特別図柄6bであってもよい。そのため、遊技者は前景図柄と背景図柄の組み合わせによって特典を得できるかもしれないという期待感を持って遊技することができる。

(3) 前景図柄と背景図柄を重複して（すなわち重ね合わせて）表示すると、特定図柄の組み合わせになったか否かは重複して表示された部位（あるいは削除）を見れば容易に分かる。よって、遊技者は当該部位を見るだけで特典が与えられるか否かを簡単に判別することができる。また、前景図柄と背景図柄を重複して表示すると、表示領域を小さくでき、ひいては表示部6を小さくすることができる。さらに、限られた面積（すなわち所定面積）の表示領域では、各図柄を大きく表示することができます、あるいは図柄の数を増やすことができる。

【0016】次に、いかゆる第3種始動口付きアッカーモードを備えた第1種バチンコ機に本発明を適用した例について、図2～図10を参考しながら説明する。図2はバチンコ機10の外観を正面図で示す。図2に示すバチンコ機10の遊技盤面12上には、後述するように図柄表示器22や保留球ランプ20等を有する複合装置14、図柄変動を開始する所定条件に対する回転変動始動口66、ソレノイド54によって蓋72を開閉可能な大入賞口56、可動翼片（いかゆるチューリップ）を開閉可

能な普通電動役物62、後述するように回転体26や大入賞口32等を有する役物装置24、その他一般的な入賞口や風車、針などが適宜に配置されている。

【0017】複合装置14は、図柄変動中に図柄変動始動口66を通過したバチンコ球の個数を表示する保留球ランプ20や、前景図柄と背景図柄を表示可能な図柄表示器22等を有する。保留球ランプ20は複数個の発光部（例には4個のLED）を有する。以下本明細書では、当該保留球ランプ20の表示によって認識できる個数を単に「保留球数」と呼ぶ。表示部6に相当する図柄表示器22は例えば液晶表示器を用い、文字、記号、符号、模様、图形、映像などの図柄からなる特別図柄や普通図柄、装飾図柄等を前景図柄または背景図柄として表示する。この図柄表示器22に表示する特別図柄は、図柄変動始動口66にバチンコ球が入賞すると変動し始め、所定時間経過後に停止するようになっている。なお、図柄表示器22として液晶表示器を用いたが、CRTやLED表示器、プラズマ表示器、回転ドラム式表示器などにより図柄が表示可能な如何なる表示器を用いてもよい。また、特別図柄や普通図柄等の表示に一の図柄表示器22を兼用したが、別個の表示器で表示してもよい。

【0018】図柄変動始動口66は、入賞したバチンコ球を検出して検出信号を出力する始動口センサ64を有する。よって、バチンコ機10では図柄変動始動口66にはバチンコ球が入賞すると所要条件が成立することになる。大入賞口56は上記蓋72の他に、バチンコ球が第1開放期間（例えば20秒間）内に入賞すると大当たり遊技状態を所要回数（例えば16回）内で維持可能になるVゲーンセンサや、単に賞球を払い出す普通入賞口などを有する。入賞したバチンコ球を検出するため、上記VゲーンセンサにはVゲーンセンサ70を、上記普通入賞口には入賞センサ74をそれぞれ有する。なお、図柄変動始動口66はバチンコ球が入賞すると通常の大入賞口と同様に賞球を払い出す。

【0019】普通電動役物62は、上記可動翼片を開閉するソレノイド60や、入賞したバチンコ球を検出して検出信号を出力する特定領域センサ58等を有する。よって、バチンコ機10では普通電動役物62にバチンコ球が入賞することが特定領域を入賞（あるいは通過）したことになる。役物装置24は「第3種始動口付きアッカーモード」とも呼ばれ、バチンコ球を搬送可能な凹部を有する回転体26や、その回転体26をほぼ一定速度で回転させるモーター28、回転体26によって搬送され入賞したバチンコ球を検出し検出信号を出力する入賞センサ30、ソレノイド76によって蓋34を開閉可能な大入賞口32、その大入賞口32に入賞したバチンコ球を検出し検出信号を出力する入賞センサ36等を有する。上記回転体26に備えた凹部は第3種始動口に相当し、当該第3種始動口に入賞したバチンコ球を入賞センサ30

で換出する。回転体26とモータ28の間は直接的に連結してもよく、ギアやリンク等のトルク伝達部材によって間接的に連結してもよい。モータ28はサーボモータを用いるが、ハルスモータ等の他のモータを用いてもよい。

【0020】遊技盤面12の下方には、遊技者がバチンコ機10に対して所要の操作を行なう操作ボタン50（操作部）、賞球を含むバチンコ球を一時的に貯留する下皿46や、タバコの吸い殻等を入れる灰皿48、遊技者の手が触れているか否かを検出するタッチセンサ44を備えたハンドル42、賞球の貯留である上皿40の内部に設けて音（効果音や音楽等）を出すスピーカ52などを備える。また、ガラス棒18（他に「金棒」とも呼ぶ。）の開放を檢出する棒開放センサ38や、バチンコ機10の遊技内容等に合わせて適切な位置に配置されている発光体からなるランプ類16をも備える。

【0021】次に、バチンコ機10によるバチンコ遊技を実現するメイン制御基板100と、メイン制御基板100から送られた表示指令（例えばコマンドブロック）を受けて図柄表示器22に図柄を表示する表示制御基板200について、これらの概略構成を示した図3を参照しながら説明する。これらのメイン制御基板100および表示制御基板200は例えばバチンコ機10の背面側に設ける。図3において遊技制御部2に相当するメイン制御基板100はCPU（フロッセッタ）110を中心構成され、遊技制御プログラムや所要の遊技データ（例えば大当たり等）を格納するROM112、各種の乱数、データ、入出力信号等を格納するRAM114、各種の入力装置から送られた信号を受けてメイン制御基板100内で処理可能なデータ形式に変換する入力処理回路102、CPU110から送られた表示データを受けて各種の出力装置を作動させる出力処理回路104、CPU110から送られた表示データを受けて各種の表示体を適宜に表示（点灯、点滅を含む）する表示制御回路106、表示制御基板200に対して所要のデータを送る通信制御回路116等を有する。これらの構成要素は、いずれもバス118に互いに結合されている。

【0022】CPU110はROM112に格納された遊技制御プログラムを実行してバチンコ機10による遊技を実現するが、当該遊技制御プログラムには後述する始動処理等を実現するためのプログラムをも含む。ROM112にはEEPROMを用い、RAM114にはDRAMを用いるが、他種のメモリを用いてもよい。他種のメモリとしては、EEPROM、SRAM、フラッシュメモリ等がある。入力処理回路102が検出信号等を受ける入力装置としては、例えば操作ボタン50、入賞検出センサ（始動センサ64やVゾーンセンサ70、入賞センサ74等）あるいは他のセンサ（棒開放センサ38やタッチセンサ44等）などがある。出力処理回路104が信号を出力する出力装置としては、例えばソ

ノード54、60、76等がある。表示制御回路106が表示制御する表示体としては、例えばランプ類16や保留球ランプ20等がある。通信制御回路116は、必要に応じてさらに図示しない棒制御基板やホールコンピュータ等に対しても所要のデータを送ることができる。

【0023】次に、表示制御部2に相当する表示制御基板200はCPU210を中心構成され、表示制御プログラムや所要の表示データ（例えは表示指令に対応する表示情報や、はずれ変動パターンを含む複数の変動パターン、複数のリーフパターン等）を格納するROM202、表示指令、表示情報、入出力信号等を格納するRAM204、メイン制御基板100から送られたデータを受信しする通信制御回路206、所要の回路を記憶し指令を受けて生成するキャラクタジェネレータ212、CPU210から送られた表示情報を受けて回路表示器22に加工した回路を表示するVDP（Video Display Processor）214等を有する。これらの構成要素は、いずれもバス208に互いに結合されている。

【0024】CPU210はROM202に格納された表示制御プログラムを実行して図柄表示器22に図柄を表示するが、当該表示制御プログラムには後述する図柄表示処理等を実現するためのプログラムをも含む。ROM202はEEPROMを用い、RAM204にはDRAMを用いるが、上記他種のメモリを用いてもよい。通信制御回路206は、必要に応じてさらに図示しない棒制御基板やホールコンピュータ等に対しても所要のデータを送ることができる。キャラクタジェネレータ212が生成する回路データとしては、例えは文字（英数字や漢字等）、図柄（特別図柄、普通図柄、装飾図柄等）、静止画、動画（アニメーション等）、映像等がある。VRAMやパレットRAM等を有するVDP214は、表示情報を受けてキャラクタジェネレータ212が生成した図柄データを読み込み、配色指定及びブロード処理等の画像処理を行なってVRAMやパレットRAMに図柄データを展開した上で、最終的に映像信号や同期信号等を図柄表示器22に出力する。このときスプライト処理を実行して実現されるスプライト機能によって、前景図柄としての普通図柄だけでなく、背景図柄としての特別図柄をも同時にまたは非同時に変動させることができくなる。

【0025】なお、メイン制御基板100から送られた指令信号を受けて各種装置の作動を制御する棒制御基板やその他の基板等については、本発明の要旨と関連しないために図示および説明を省略する。上記各種装置としては、例えばハンドル42が操作されるとバチンコ球を発射する発射装置や、球貨や賞球のためにバチンコ球の払い出しを行なう払出装置などが該当する。

【0026】上記のように構成したバチンコ機10において、本発明を実現するためにメイン制御基板100や表示制御基板200で行なう処理手順について図4～図8

を参照しながら説明する。図4には始動口処理の内容を、図5には図柄変動処理の内容を、図6には普通図柄用変動表示処理の内容を、図7には特別図柄用変動表示処理の内容を、図8には特典実行処理の内容をそれぞれフローチャートで示す。これらの処理手順のうち図柄表示処理を除く処理（例えば始動口処理や図柄変動処理等）は、いずれも図3に示すメイン制御基板100においてROM112に格納されている遊技制御プログラムをCPU110が適当なタイミング（例えば4ミリ秒ごとの周期）で実行して実現する。図柄表示処理は表示制御基板200においてCPU210とVDP214が適当なタイミングでプログラムを実行して実現する。なお以下の説明において、前景図柄（例えば普通図柄）と背景図柄（例えば特別図柄）は、いずれも遊技状態等に応じて適切なタイミングで適切な図柄が図柄表示器22に表示されるものとする。また、「加算する」とは通常は1だけ保留球数等を増やすことを意味するが、遊技状態等に応じて適宜2以上ずつ増やす場合を含む。これに対して「減算する」とは、保留球数等を減らす点を除いて加算する場合と同様である。

【0027】図4に示す始動口処理は、図柄変動始動口66に対するバチンコ球の入賞判別を実現する。まず、図柄変動始動口66にバチンコ球が入賞したか否かを判別する〔ステップS10〕。具体的には、図2、図3に示す始動口センサ64から検出信号を受けると入賞した（YES）と判別し、当該検出信号を受けなければ入賞していない（NO）と判別する。もし、図柄変動始動口66にバチンコ球が入賞すると、保留球数が上限値（満タン状態であって例えば4個）に達したか否かを判別する〔ステップS12〕。保留球数が上限値に達していないければ（NO）、その保留球数を加算する〔ステップS14〕。加算した保留球数に応じて保留球ランプ20のLEDを点灯する。その後、各種乱数の読み込みと記憶を行い〔ステップS16〕、始動口処理を終了する。なお、図柄変動始動口66にバチンコ球が入賞していない場合（ステップS10のNO）や、保留球数が上限値に達した場合（ステップS12のYES）には、そのまま始動口処理を終了する。

【0028】上記ステップS16で読み込んでRAM114に記憶する各種乱数には、普通図柄に関する乱数と、特別図柄に関する乱数がある。普通図柄に関係する乱数としては、例えば当たりか否かを判別するため用いる当たり判定用乱数R_Aや、その当たり判定用乱数R_Aによって当たりと判別されたときに図柄表示器22に表示する普通図柄を特定するために用いる当たり図柄用乱数R_B、当該普通図柄でリーチになってから変動を停止までの表示パターンを特定するために用いる普通リーチパターン用乱数R_Cなどがある。特別図柄に関係する乱数としては、例えば大当たりか否かを判別するために用いる大当たり判定用乱数R_Dや、その大当たり

判定用乱数R_Dによって大当たりと判別されたときに図柄表示器22に表示する特別図柄を特定するために用いる大当たり図柄用乱数R_E、当該特別図柄でリーチになってから変動を停止するまでの表示パターンを特定するために用いる特別リーチパターン用乱数R_F、大当たりになった後に確率変動を行なか否かを判別するために用いる確率変動用乱数R_Gなどがある。

【0029】図5に示す図柄変動処理は、図柄表示器22で表示する図柄変動を実現する。まず保留球数が正数（すなわち保留球数0）を満たすか否かを判別する〔ステップS20〕。保留球数が正数のときは（YE S）、次回の処理に備えて保留球数を減算する〔ステップS22〕。このとき減算した保留球数に応じて保留球ランプ20のLEDを点灯する。そして、普通図柄用変動表示処理を行なう〔ステップS24〕。この普通図柄用変動表示処理の具体的な内容について、図6を参照しながら説明する。

【0030】図6に示す普通図柄用変動表示処理は第1抽選に相当し、普通図柄の変動を開始してから停止するまでの表示を実現する。まず図4のステップS16で記憶した当たり判定用乱数R_Aを読み込み〔ステップS40〕、当該当たり判定用乱数R_Aが当たり値と一致したか否かによって「当たり」か否かを判別する〔ステップS42〕。当たり値は通常状態では1個であるが、遊技状態（例えば確率変動）等によっては適宜の個数を増減してもよい。もし「当たり」なら（YES）、同じくステップS16で記憶した当たり図柄用乱数R_Bを読み込み〔ステップS44〕、当該当たり図柄用乱数R_Bの値に基づいて最終的に確定する予定の普通図柄を決定する。そして、特別図柄と普通図柄とはほぼ同時に変動を開始し〔ステップS46〕、普通図柄の変動を開始してしばらくするとリーチ処理を実行する〔ステップS48〕。なお、普通図柄にかかるリーチ処理は普通リーチパターン用乱数R_Cに基づいて行なうが、その処理内容は後述する特別図柄にかかるリーチ処理の内容とはほぼ同様であるので図示および説明を省略する。こうしてリーチ処理を終えると、普通図柄用変動表示処理も終了する。

【0031】一方、ステップS42の判別で「はずれ」なら（NO）、はずれ図柄を図柄表示器22に表示するため普通図柄のはずれ図柄データをRAM114から読み込み〔ステップS50〕、当該はずれ図柄にリーチ図柄を含むか否かを判別する〔ステップS52〕。リーチ図柄は第1図柄（例えば左図柄）と第2図柄（例えば右図柄）の組み合わせが該当し、多くのバチンコ機10では同じ図柄（いわゆるゾロ目）を充てる。もしリーチ図柄を含むなら（YES）、特別図柄と普通図柄とはほぼ同時に変動を開始し〔ステップS46〕。最終的には「はずれ」になるが途中でリーチになるのでリーチ処理を実行する〔ステップS48〕。こうしてリーチ処理を終えると、普通図柄用変動表示処理も終了する。ス

ステップS52の判別でリーチ回柄を含まなければ(NO)、ステップS46と同様に特別回柄と普通回柄をはは同時に変動を開始し〔ステップS54〕、普通回柄をはずれ回柄で停止させた後に〔ステップS56〕、普通回柄用変動表示処理を終了する。上記ステップS46、S48、S54ではそれぞれ対応する表示指令を表示制御基板200に送って、普通回柄の回柄変動を実現する。

【0032】普通回柄用変動表示処理を終えると図5に戻り、当たりか否かを判別する〔ステップS26〕。外來ノイズ等の影響を受けにくく信頼性が高いバシコン機10では、上記当たり判定用乱数RDに値に基づいて「当たり」か否かを判別する。なお、必要に応じて実際に回柄表示器22に表示された普通回柄が当たり回柄と一致するか否かによって当たりか否かを判別してもよい。もし「当たり」ならば(YES)、後述する普通特典実行処理に備えて普通特典フラグをオンにした後〔ステップS28〕、特別回柄用変動表示処理を実行する〔ステップS30〕。一方、ステップS26の判断で「はずれ」ならば(NO)、そのままステップS30の特別回柄用変動表示処理を実行する。この特別回柄用変動表示処理の具体的な内容について、図7を参照しながら説明する。

【0033】図7に示す特別回柄用変動表示処理は第2抽選に相当し、特別回柄の変動を開始してから停止するまでの表示を実現する。まず図4のステップS16で記憶した大当たり判定用乱数RDを読み込み〔ステップS60〕、当該大当たり判定用乱数RDが大当たり値と一致したか否かによって「大当たり」か否かを判別する〔ステップS62〕。大当たり値は通常状態では1個であるが、遊技回数(例えば確率変動)等によっては適宜の個数を増減してもよい。もし「大当たり」ならば(YES)、同じくステップS16で記憶した大当たり回柄用乱数REを読み込み〔ステップS64〕、当該大当たり回柄用乱数REの値に基づいて最終的に確定する予定の特別回柄を決定する。そして、特別回柄についてリーチ処理を行う〔ステップS66〕。このリーチ処理は一般的のバシン回柄と同様であり、例えば図4のステップS16で記憶した特別リーチパターン乱数RFと、上記ステップS64で決定した最終的に確定する予定の特別回柄とに値に基づいて所要のデータテーブル等に従ってリーチパターンを決定する。そして、決定したリーチパターンに従って表示制御基板200に表示指令を送ってリーチ後における回柄変動を実現する。

【0034】上記リーチパターンは、回柄変動やアニメーション(装飾回柄)等の表示を実現するためのパターンである。当該回柄変動の中には、リールを回転させる様の通常変動や、画面上の所定位置を中心に任意方向に揺れ動かす様の正逆変動、全回柄(左回柄、中国柄、右回柄)を同期させながら変動する様の全回柄変動などがある。また、回柄変動を実現する変動パターン

には、複数の変動領域でそれぞれ変動を行う場合において変動中の変動速度や変動方向、停止時期や順番等を含む。第1回柄(例えば左回柄)と第2回柄(例えば右回柄)を組み合わせたりーチ回柄は回柄表示器22に表示するが、他の表示器のみや、その両方に表示してもよい。こうすれば回柄表示器22以外の表示器にもリーチ回柄等が表示されるので、リーチ回柄が何であるかを認識し易くなる。なおリーチ回柄を表示する際には、さらにはリーチに達したことを遊技者に知らせててもよい。例えば「リーチ」の文字や所定のアニメーションなどを表示し、音声や特定の効果音をスピーカ52から出し、遊技者が感知するハンドル412や遊技者を動かす椅子を振動させる等のような様態がある。こうすれば、遊技者はリーチに達したことをより確実に認識することができる。

【0035】一方、ステップS62の判別で「はずれ」ならば(NO)、はずれ回柄を回柄表示器22に表示するために特別回柄用のはずれ回柄データをRAM114から読み込んだ後〔ステップS80〕、当該はずれ回柄にリーチ回柄を含むか否かを判別する〔ステップS82〕。リーチ回柄は回柄が異なる点を除いて普通回柄の場合と同様である。もしリーチ回柄を含むならば(YES)、最終的には「はずれ」になるが途中でリーチになるので上記ステップS66に進む。一方、ステップS82の判別でリーチ回柄を含まなければ(NO)、はずれ回柄で停止し〔ステップS84〕、後述のステップS70に進む。

【0036】リーチ処理を終えると、確率変動か否かを判別する〔ステップS68〕。具体的には、図4のステップS16で記憶した確率変動用乱数RGが所定値と一致したか否か等によって判別する。もし確率変動と判別したときは(YES)、確率変動処理を実行した後〔ステップS70〕、変動表示処理を終了する。確率変動処理の内容については周知であるので、図示および説明を省略する。当該確率変動処理を実行すると、今回の大当たりが終了後から次の回の大当たりになるまで、変動後に大当たり回柄で停止して大当たりになる確率が高まり、特別回柄の回柄変動開始が短縮される。また、変動後に当たり回柄で停止して当たりになる確率が高まり、普通回柄の回柄変動期間が短縮される。一方、確率変動と判別しなかったときは(ステップS68のNO)、そのまま特別回柄用変動表示処理を終了する。なお、上記ステップS66、S70、S84ではそれぞれ対応する表示指令を表示制御基板200に送って回柄変動等を実現する。

【0037】特別回柄用変動表示処理を終えると再び図5に戻り、大当たりか否かを判別する〔ステップS32〕。外來ノイズ等の影響を受けにくく信頼性が高いバシコン機10では、大当たり判定用乱数RDに値に基づいて「大当たり」か否かを判別する。なお、必要に応じて実際に回柄表示器22に表示された特別回柄が大当たり回

柄と一致するか否かによって大当たりか否かを判別してもよい。もし「大当たり」ならば(YES)、特別特典フラグをオンにして後述する特別特典実行処理に備え〔ステップS34〕、図柄変動処理を終了する。一方、ステップS32の判別で「はずし」ならば(NO)、そのまま図柄変動処理を終了する。

【0038】次に遊技者に特典を与える処理の内容について、図8を参照しながら説明する。図8(A)では普通図柄による当たりに対応する処理を行い、図8(B)では特別図柄による大当たりに対応する処理を行う。

【0039】図8(A)の普通特典実行処理では、まず普通特典フラグのオン/オフを判別する〔ステップS90〕。この普通特典フラグは、当たりのときに図5のステップS28でオンに設定される。もし普通特典フラグがオンならば(YES)、次回以降の処理に備えて普通特典フラグをオフにした後〔ステップS92〕、ソレノイド60を作動させて普通電動駆動物6の可動翼片を所定期間(例えば3秒間)だけ開放する〔ステップS94〕。そして、当該所定期間内にバチンコ球が普通電動駆動物6の判定領域に入賞(通過)したか否かを判別する〔ステップS96〕。もしバチンコ球が特定領域に入賞(通過)したならば(YES)、当たりの権利が発生して当たり処理を行う〔ステップS98〕。当たり処理では、第3種始動口に入賞することを条件に大入賞口を開放する。例えば役物装置2の回転体2によって搬送され入賞したバチンコ球が入賞センサ30によって検出されると、第3種始動口に入賞したと判断する。当該判断によって、大入賞口32の蓋34を第2開放期間(例えば6秒間)だけ開放し、当該第2開放期間内であってもバチンコ球が所定回数(例えば10回)入賞すると閉鎖する。こうした大入賞口32の蓋34の開閉は、上限回数(例えば16回)の範囲内に纏められる。この当たり処理の実行によっても入賞したバチンコ球の数に応じて賞球を払い出されるので、遊技者は多くの賞球を得る機会が与えられる。こうして当たり処理を行なった後、普通特典実行処理を終了する。なお、大入賞口32の蓋34を開閉する態様に代えて、大入賞口56の蓋72を第2開放期間だけ開放してもよい。こうすれば、普通図柄による当たりと特別図柄による大当たりとについて、遊技者は同じ種類の特典を得ることができる。ここで、ステップS90の判別で普通特典フラグがオフならば(NO)、そのまま普通特典実行処理を終了する。

【0040】図8(B)の特別特典実行処理では、まず特別特典フラグのオン/オフを判別する〔ステップS100〕。この特別特典フラグは、当たりのときに図5のステップS34でオンに設定される。もし特別特典フラグがオンならば(YES)、次回以降の処理に備えて特別特典フラグをオフにし〔ステップS102〕、当たり処理を行う〔ステップS104〕。この当たり処理は、例えば大入賞口56の蓋72を第1開放期間だけ

開放し、当該期間内にVゾーンに入賞すると当該大当たり遊技状態を所要回数内で維持できるように行う。この大当たり処理の実行によって入賞したバチンコ球の数に応じて賞球を払い出されるので、遊技者は多くの賞球を得る機会が与えられる。こうして大当たり処理を行なった後、特別特典実行処理を終了する。なお、ステップS100の判別で特別特典フラグがオフならば(NO)、そのまま特別特典実行処理を終了する。

【0041】次にメイン制御基板100から表示制御基板200に送る表示指令に相当するコマンドブロックの構成例と、表示制御基板200において行われる図柄表示処理について図9と図10を参照しながら説明する。図9(A)に示すコマンドブロック300は、普通図柄を特定する普通図柄番号302、その普通図柄番号302で特定する普通図柄表示位置304、特別図柄を特定する特別図柄番号304、その特別図柄番号306で特定した特別図柄を表示する位置(座標)を特定する特別図柄表示位置308、特別図柄や普通図柄以外の装飾図柄を特定する装飾図柄番号310、図柄変動やアニメーション等における開始時刻からの経過時間312、データの正当性を判別するために用いるチェックサム314(あるいは誤りデータを訂正可能な誤り訂正符号等)などを有する。

【0042】表示可能な普通図柄と特別図柄には固有の番号をそれぞれ付し、表示すべき図柄を普通図柄番号302か特別図柄番号306によって特定する。複数の普通図柄をほぼ同時に表示する場合には、その数に対応した図柄番号を特定すればよい。例えば3つの特別図柄(左図柄、右図柄、中図柄)をほぼ同時に表示する場合は、図9(B)に示すように左図柄番号302a、中図柄番号302b、右図柄番号302c等で普通図柄番号302を特定する。さらに複数の普通図柄を同時に表示する場合には、その数に対応した図柄表示位置を特定するが必要がある。図9(C)の例では左図柄表示位置304a、中図柄表示位置304b、右図柄表示位置304c等によって普通図柄表示位置304を特定する。ここでは普通図柄について示したが、特別図柄を特定する場合についても同様である。また、必要に応じて表示する装飾図柄も普通図柄等と同様に固有の番号をそれぞれ付し、表示すべき装飾図柄を装飾図柄番号310によって特定する。装飾図柄が多数ある場合や組み合わせて表示するにはコマンドブロック300を設定し易くするために、装飾図柄をグループ分けしてROM112、202等に記憶しておく。当該グループごとに固有の番号を付しておく。そして、コマンドブロック300ではグループごとの番号によって表示する装飾図柄を特定する。

【0043】次に、メイン制御基板100から送られた表示指令を受けた表示制御基板200が図柄組集を行なって図柄表示器22に図柄を表示する図柄表示処理につ

いて、図10を参照しながら説明する。なお表示指令は、受信割り込みごと実行される割り込みプログラムによって図3に示すRAM204等に設けた受信バッファに記憶されているものとする。この受信バッファは、表示指令や他の受信データ等が記憶できる程度の容量を有する。図10に示す図柄表示処理では、まず受信バッファに記憶された表示指令としてのコマンドブロック300をCPU210が読み込み（「ステップS110」）、読み込んだコマンドブロック300に基づいて表示データを取得してRAM204に記憶する（「ステップS112」）。より具体的には、ROM202等に記憶されたデータベース等であってコマンドブロック300と表示データとの関係を規定したものを参照して表示データを取得する。この表示データは図柄編集を行うためのデータ要素（パラメータ）であり、例えばリーチパターンや普通図柄番号302、普通図柄表示位置304等が該当する。その後、CPU210は取得した表示データをVDP214に伝達する。

【0044】CPU210から表示データを受けたVDP214は、当該表示データに基づいて図柄等のデータをキャラクタジェネレータ212から抽出し（「ステップS114」）、配色指定及びスライド処理等の図柄編集を行った後（「ステップS116」）、VRAMやフレットRAM上にデータを展開する（「ステップS118」）。そして、展開したデータを図柄信号に変換して図柄表示器22に送出する（「ステップS120」）。こうして表示データに基づいて編集した図柄等を図柄表示器22に表示させることができる。また図柄編集をハードウェアとしてのVDP214が行うので、前景図柄と背景図柄を高速に表示することができる。

【0045】次に、図4～図9に示す処理を実行して普通図柄（前景図柄）と特別図柄（背景図柄）を図柄表示器22に表示する例について、図12、図13を参照しながら説明する。この例は普通図柄で「はずれ」になった後に特別図柄で「大当たり」になるケースを示すものであって、双方が「はずれ」で数多く発生するケースについては図示と説明を省略する。また、図柄表示器22の表示領域は左側、中側、右側の三つの変動領域（以下、順に左変動領域、中変動領域、右変動領域と呼ぶ。）を備え、各変動領域で図柄変動を開始した後に左図柄、中図柄、右図柄を各3段で停止すると仮定する。さらに、変動後に斜め一列や上段、中段、下段の横一列に同じ図柄が備えうと、「大当たり」や「当たり」になると仮定する。なお、以下の説明では図11に示す特別図柄と普通図柄を用いるものと仮定する。すなわち、図11（A）に示すように普通図柄としての左図柄80、中図柄82、右図柄84は数字の図柄「1」から「9」まで順に配列し、左図柄80と右図柄84は同じ配列順であるが中図柄82のみ逆の配列順に構成している。また、図11（B）に示すように特別図柄と

しての左図柄90、中図柄92、右図柄94はそれぞれ配列が異なる模様の図柄で構成している。当該図柄の種類は、図示するように縦線、横線、斜線（左上から右下、右上から左下）、星または雪、逆三角形、格子（縦横、斜め）、階段状などの模様である。

【0046】パンチ球の配列変動始動口6に入賞すると、図12（A）に示すように変動パターンに基づいて普通図柄と特別図柄が同時に図柄変動を開始する（「図6のステップS46」）。その後に普通図柄でリーチになると、図12（B）に示すように左図柄80と右図柄84が停止する（「図6のステップS48」）。図12（B）の例では、上段の左図柄80と右図柄84がともに数字の図柄「5」で一致しているため、「リーチ」という文字とともにリーチライン86が表示されている。

そして最終的に中図柄92が停止したとき、図12（C）に示すように斜め一列や上段、中段、下段の横一列のいずれにも同じ図柄「5」で揃っているため、普通図柄による抽選結果は「はずれ」である。この間も特別図柄は図12（A）に示すように変動し続け、その後に特別図柄でリーチになると、図13（B）に示すように左図柄90と右図柄94が停止する（「図7のステップS66」）。図13（B）の例では、中段の左図柄90と右図柄94がともに逆三角形の模様からなる図柄で一致しているため、「リーチ」という文字とともにリーチライン96が表示されている。そして最終的に中図柄92が停止し、図13（C）に示すように中段の横一列に同じ模様の図柄が揃ったため、特別図柄による抽選結果は「大当たり」である。このとき、大当たりになったことを遊戯者に報知するため、図柄表示器22には「大当たり」という文字をメッセージ98として表示する。こうして大当たりになると大賞口56が一時的に開くので、遊戯者はパンチ球を入賞させることにより多くの賞品を獲得する機会が得られる。したがって、普通図柄（前景図柄）ではあっても特別図柄（背景図柄）で当たる可能性があるので、遊戯者は特別図柄によって特典を獲得できるかもしれないという期待感を持って遊戯することができる。また、前景図柄（普通図柄）には図11（A）に示す文字の図柄を用い、背景図柄（特別図柄）には図11（B）に示す模様の図柄を用いてそれぞれ表示したので、両図柄の区別が容易であり、遊戯者に紛らわしく感じさせない。

【0047】上記実施の形態1によれば、以下に示す効果を得ることができる。

（1）請求項1に対応し、メイン制御基板100（遊技制御部2）は第1抽選により変動している普通図柄（左図柄80、中図柄82、右図柄84；前景図柄）が当たる図柄（特別図柄）で停止すると（図5のステップS26）、大賞口32の蓋34を開ける（遊戯者に第1特典を与える）（図8（A）のステップS98）。また、メイン制御基板100は第2抽選により変動している特

別図柄（左図柄9.0、中図柄9.2、右図柄9.4；背景図柄）が大当たり図柄（所定図柄）で停止すると（図5のステップS32）、大入賞口5.6の蓋7.2を開ける（遊技者に第2特典を与える）【図8（B）のステップS1.04】。よって、遊技者は普通図柄だけでなく特別図柄についても、すなわち両方の図柄について特典を期待する期待感を持って遊技することができる。

（2）請求項2に対応し、普通図柄による第1特典では大入賞口5.6の蓋7.2を第2開放期間だけ開放し、特別図柄による第2特典では大入賞口5.6の蓋7.2を第1開放期間だけ開放した。すなわち、第1特典と第2特典の種類を同じとした。こうすれば前述別図柄と背景図柄のいずれについても同じ種類の特典が与えられるので、遊技者はいずれか少なくとも一方の図柄によって与えられる特典を期待する期待感を持って遊技することができる。

（3）請求項3に対応し、変動している普通図柄が必ずしも図柄（特定回数以外の回数）で停止すると、当該停止後に特別図柄の変動を停止した【図5のステップS2.4、S3.0】。こうすると、遊技者は普通図柄と特別図柄のいずれか一方の図柄が停止して特典が与えられなくても、他方の図柄が停止すると特典が与えられる可能性がある。よって、遊技者は第1特典と第2特典の少なくとも一方によって与えられる特典を期待する期待感を持って遊技することができる。このことは、変動している特別図柄が必ずしも図柄（所定回数以外の回数）で停止すると当該停止後に普通図柄の変動を停止する場合でも同様である。

（4）請求項5に対応し、普通図柄としての左図柄8.0、中図柄8.2、右図柄8.4と、特別図柄としての左図柄9.0、中図柄9.2、右図柄9.4を重複して図柄表示器2.2（表示部）に表示した【図13参照】。このとき前景図柄と背景図柄でそれぞれ特典を与えられる図柄になったか否かは、重複して表示された部位（領域）を見れば分かる。よって、遊技者は当該部位を見るだけで特典が与えられるか否かを簡単に判断することができる。

【0048】なお、上記実施の形態1では、前景図柄として普通図柄を用い、背景図柄として特別図柄を用いた。この形態に代えて、以下に示す形態で実施してもよい。

（1）前景図柄として特別図柄を用い、背景図柄として普通図柄を用いてよい。この場合でも、特別図柄にかかるわらず、遊技者は普通図柄によって特典を獲得できるかもしれないという期待感を持って遊技することができる。

（2）前景図柄および背景図柄の両方に特別図柄を用いてよい。この場合には請求項2に対応し、前景図柄としての特別図柄がどうなったかにかかわらず、背景図柄としての特別図柄によって特典が与えられる可能性がある。そのため、遊技者は背景図柄としての特別図柄によって特典を獲得できるかもしれないという期待感を持つ

て遊技することができる。このことは、前景図柄および背景図柄の両方に普通図柄を用いた場合でも同様である。

（3）前景図柄や背景図柄には上記実施の形態1で用いた図柄に限らず、図形、記号、絵柄等の図柄や、風景や模様、キャラクタ等の静止画やアニメーション等の動画、あるいは映像などを用いてよい。こうすれば図柄表示器2.2の表示機能が多様化して表現も豊かになるので、遊技者を引きつけやすくなる。このことは後述する実施の形態2においても同様である。

（4）一の図柄表示器2.2で表示部6を構成したが、複数の表示器で表示部6を構成してもよい。この場合には、前景図柄と背景図柄を別個の表示器に表示してもよく、少なくとも2以上の表示器で同じ表示を行なってよい。注目すべき図柄を特別の表示器に表示させると遊技者は当該図柄を認識しやすくなり、複数の表示器に同じ表示を行なう遊技者は都合のよい表示器で認識できる。

【0049】【実施の形態2】実施の形態2は遊技機の一つである第1種バチンゴ機に本発明を適用した例であって、前景図柄と背景図柄の組み合わせによって遊技者に特典を与える様態である。本実施の形態2は、図14～図20を参照しながら説明する。

【0050】図14には第1種バチンゴ機であるバチンゴ機500の外観を正面図で示す。図14に示すバチンゴ機500の遊技盤面50.2上には、通過するバチンゴ球を検出するゲートセンサ54.8を有するゲート5.2、そのゲート5.2.2を構成しているバチンゴ球の通過を検出しない模擬ゲート5.1.4、5.5.2、入賞したバチンゴ球を検出する始動口センサ55.0を有する第1種始動口5.2.0、ソレノイド5.4.4によって開閉される蓋5.6.4を有する大入賞口5.2.4、後述するように特別図柄表示器5.1.2や保留球ランプ5.1.0、5.1.8等を有する複合装置5.0.4、その他に一般の入賞口や風車、釘などが適宜に配置されている。

【0051】模擬ゲート5.1.4、5.5.2のうち模擬ゲート5.1.4には、普通図柄を変動または停止して表示する普通図柄表示器5.1.6を備える。普通図柄表示器5.1.6は一側または複数個の発光体（例えば緑色を発するLEDと赤色を発するLED）からなり、ゲート5.2.2にバチンゴ球が通過したときに変動が始まって所定時間経過後に停止する。具体的には発光体を点灯・点滅等させて変動を行い、特定の発光体（例えば赤色のLED）が点灯状態または消灯状態で停止すると下部始動口5.5.8の蓋を一定期間（例えば4秒間）だけ開ける。大入賞口5.2.4上に記載5.6.4の他に、バチンゴ球が大入賞口開放期間（例えば20秒間）内に入賞すると大当たり遊技状態を所要回数（例えば16回）内で維持可能になるVゾーン5.4.6や、単に賞球を払い出す普通入賞口などを有する。入賞したバチンゴ球を検出するために、Vゾーン

546にはVゾーンセンサ542を、上記普通入賞口には入賞センサ560をそれぞれ有する。また、大入賞口524の下方には入賞したバチンコ球を検出する始動口センサ556を有する下部始動口558を設ける。当該下部始動口558は第1種始動口520と同等の機能を備える。これらの第1種始動口520や下部始動口558は、いずれもバチンコ球が入賞すると通常の入賞口と同様に賞球を払い出す。よって、バチンコ機500では第1種始動口520や下部始動口558にバチンコ球が入賞すると所要条件が成立することになる。

【0052】複合装置504は、前景図柄と背景図柄を表示可能な特別図柄表示器512、普通図柄の変動中にゲート522を通過したバチンコ球の個数を表示する保留球ランプ510、特別図柄の変動中に第1種始動口520や下部始動口558に入賞したバチンコ球の個数を表示する保留球ランプ518等を有する。以下、保留球ランプ518の表示によって認識できる数を「保留球数」と呼ぶ。

【0053】表示部6に相当する特別図柄表示器512は例えば液晶表示器を用い、文字、記号、図形、映像などの巡回からなる特別図柄、装飾圖柄等を表示する。この特別図柄表示器512に表示する特別図柄は、第1種始動口520や下部始動口558にバチンコ球が入賞すると変動し始め、所定時間経過後に停止するようになっている。なお、特別図柄表示器512として液晶表示器を用いたが、CRTやLED表示器、プラズマ表示器などのように図柄が表示可能な如何なる表示器を用いてもよい。また、普通図柄表示器516と特別図柄表示器512を別個に用いたが、同一の表示器で双方を兼用してもよい。保留球ランプ510、518は、それが複数個の発光体（例えば4個のLED）からなる。

【0054】遊技盤面502の下方には、遊技者がバチンコ機500に対して所要の操作を行う操作ボタン538（操作部）、賞球を含むバチンコ球を一時的に貯留する下皿534や、タバコの吸い殻等を入れる灰皿536、遊技者の手が触れているか否かを検出するタッチセンサ532を備えたハンドル530、賞球の受皿である上皿528の内部に設けて音（効果音や音楽等）を出すスピーカ540などを備える。また、ガラス枠508（他に「金枠」とも呼ぶ。）の開放を検出する枠開放センサ526や、バチンコ機500の遊技内容等に合わせて適切な位置に配置されている発光体からなるランプ類506をも備える。さらに、上皿528には球賞を指令する球賞スイッチ554と、プリペイドカードの返却を指令する返却スイッチ562とを備える。

【0055】次に、バチンコ機500によるバチンコ遊技を実現するメイン制御基板100と、メイン制御基板100から送られた表示指令を受けて特別図柄表示器512に図柄を表示する表示制御基板200について

は、これらの構成を図15に示す。これらのメイン制御基板100および表示制御基板200の構成は実施の形態1と同様であるので、詳細な説明を省略する。なお、実施の形態1との関係では入出力装置等、具体的には以下の点で異なる。すなわちメイン制御基板100において、入力処理回路102が検出信号等を受け入力装置としては、例えば操作ボタン538、入賞検出センサ（ゲートセンサ548や始動口センサ550、556等）あるいは他のセンサ（枠開放センサ526やタッチセンサ532等）などがある。出力処理回路104が信号を出する出力装置としては、例えばソレノイド544等がある。表示制御回路106が表示制御する表示体としては、例えばランプ類506や保留球ランプ510、518、普通図柄表示器516等がある。また、CPU2110から送られた表示情報を受けた表示制御基板200において、VDP214から加工した図柄を特別図柄表示器512に出力する。

【0056】上記のように構成したバチンコ機500において、表示を実現するためにメイン制御基板100や表示制御基板200で行う処理手順について図16～図18を参照しながら説明する。図16には第1種始動口処理の内容を、図17には特別図柄変動処理の内容を、図18には変動表示処理の内容をそれぞれフローチャートで示す。これらの処理は、いずれも図3に示すメイン制御基板100においてROM112に格納されている遊技制御プログラムをCPU110が担当するタイミング（例えば4ミリ秒ごとの周期）で実行して実現する。なお、コマンドブロック300の構成や表示制御基板200において実行される図柄表示処理等は実施の形態1とは同様であるので、図示および説明を省略する。なお以下の説明において、特別図柄表示器512に表示する背景図柄（例えば特典図柄）は、前景図柄（例えば特別図柄）にかかわらず遊技状態等に応じて適切なタイミングで適切な図柄が表示されるものとする。また、第1種始動口520と下部始動口558とは同様に機能するので、説明を簡単にするために第1種始動口520を例にして説明する。

【0057】図16に示す第1種始動口処理は図4に示す始動口処理と同様に、第1種始動口520に対するバチンコ球の入賞判別を実現する。まず、第1種始動口520にバチンコ球が入賞したか否かを判別する〔ステップS200〕。具体的には、図14、図15に示す始動口センサ550から検出信号を受けると入賞した（YE）S）と判別し、当該検出信号を受けなければ入賞していない（NO）と判別する。もし、第1種始動口520にバチンコ球が入賞すると、保留球数が上限値に達したか否か判別する〔ステップS202〕。保留球数が上限値に達していなければ（NO）、その保留球数を加算する〔ステップS204〕。加算した保留球数に応じて保留球ランプ518のLEDを点灯する。その後、各種乱数

の読み込みと記憶を行い〔ステップS206〕、第1種始動処理を終了する。なお、第1種始動口520にパチンコ球が入賞していない場合（ステップS200のNO）や、保留球数が上限値に達した場合（ステップS202のYES）には、何もせずに第1種始動処理を終了する。

【0058】上記ステップS206で読み込んでRAM114に記憶する各種乱数には、例えば大当たりか否かを判別するために用いる大当たり判定用乱数RHや、その大当たり判定用乱数RHによって大当たりと判別されたときに特別図柄表示器512に表示する前景図柄を特定するために用いる前景図柄用乱数RI、同じく背景図柄を特定するために用いる背景図柄用乱数RJ、特別図柄表示器512に表示されたリーチ図柄に応じてリーチになってから変動を停止するまでの表示パターンを特定するために用いるリーチパターン用乱数RK、大当たりになった後に確率変動を行うか否かを判断するために用いる確率変動用乱数RLなどがある。

【0059】図17に示す図柄変動処理（図5に示す図柄変動処理と同様に、特別図柄表示器512で行う図柄変動を実現する。まず保留球数が正数か否かを判別する〔ステップS210〕。保留球数が正数のときは（YES）、上記ステップS206で記憶した大当たり判定用乱数RHを読み込みとともに〔ステップS212〕、次回の処理に備えて保留球数を減算する〔ステップS214〕。こうして減算した保留球数に応じて保留球ランプ518のLEDを点灯し、変動表示処理を実行する〔ステップS216〕。この変動表示処理の具体的な内容について、図18を参照しながら説明する。

【0060】図18に示す変動表示処理は第1抽選および第2抽選に相当し、図柄変動の開始から停止までの表示を実現する。まず「大当たり」か否かを判別する〔ステップS230〕。具体的には、上記ステップS212で読み込んだ大当たり判定用乱数RHが大当たり値と一致したか否かによって判別する。大当たり値の個数については実施の形態1と同様である。もし「大当たり」と判別されたときは（YES）、図16のステップS206で記憶した前景図柄用乱数RIや背景図柄用乱数RJを読み込み〔ステップS232〕、当該前景図柄用乱数RIや背景図柄用乱数RJに応じて最終的に確定する予定の図柄を決定する。その後、前景図柄と背景図柄についてほぼ同時に図柄変動を開始し〔ステップS234〕、変動開始後しばらくしてからリーチ処理を実行する〔ステップS236〕。リーチ処理の具体的な内容は実施の形態1と同様であるので、図示および説明を省略する。こうしてリーチ処理を終えると、後述のステップS238に進む。一方、ステップS230で「はずれ」と判別されたときは（NO）、はずれ図柄を特別図柄表示器512に表示するためにはずれ図柄データをRAM114から読み込んだ後〔ステップS250〕、当該は

ずれ図柄にリーチ図柄を含むか否かを判別する〔ステップS252〕。リーチ図柄は図柄が異なる点を除いて実施の形態1と同様である。もしリーチ図柄を含むならば（YES）、最終的には「はずれ」になるが途中でリーチになるので後述するステップS234に進む。もしリーチ図柄を含まなければ（NO）、上記ステップS234と同様に前景図柄と背景図柄についてはずれ図柄変動を開始〔ステップS254〕、変動開始後しばらくしてからはずれ図柄で停止し〔ステップS256〕、後述のステップS238に進む。

【0061】リーチ処理を終えると、確率変動か否かを判別する〔ステップS238〕。具体的には、図16のステップS206で記憶した確率変動用乱数RLが所定値と一致したか否か等によって判別する。もし確率変動と判別したときは（YES）、確率変動処理を実行した後〔ステップS240〕、変動表示処理を終する。確率変動型の内容については実施の形態1と同様であるので、図示および説明を省略する。一方、ステップS238において確率変動と判別しなかったときは（NO）、そのまま変動表示処理を終了する。上記ステップS234、S236、S254、S256ではそれぞれ対応する表示指令を表示制御基板200に送って実現する。

【0062】変動表示処理を終ると図17に戻り、大当たりか否かを判別する〔ステップS218〕。外れノイズ等の影響を受けてなく信頼性が高いパチンコ機500では、上記当たり判定用乱数RHに基づいて「大当たり」か否かを判別する。なお、必要に応じて実際に特別図柄表示器512に表示された特別図柄が大当たり図柄と一致するか否かによって大当たりか否かを判別してもよい。もし「大当たり」ならば（YES）、大当たり処理を実行した後〔ステップS220〕、図柄変動処理を終する。この大当たり処理は、例えば大賞口524の蓋564を一定期間（例えば30秒間）だけ開放し、入賞したパチンコ球の数に応じて賞券を払い出す等の大当たり遊技を行う。一方、ステップS218の判別で「はずれ」ならば（NO）、そのまま図柄変動処理を終了する。

【0063】次に、図16～図18に示す処理を実行して特別図柄表示器512に前景図柄と背景図柄を表示する例について、図19、図20を参照しながら説明する。この例は前景図柄と背景図柄の組み合わせで「大当たり」になるケースの一例であり、教多く発生する「はずれ」のケースについては別紙Aに説明を省略する。なお簡単のために、特別図柄には数字の図柄「1」から「9」までを用い、特典図柄には文字の図柄を用いると仮定する。また、装飾図柄として表示するアニメーション等は説明および図示を簡単にするため省略する。

【0064】パチンコ球が第1種始動口520に入賞すると、図19（A）に示すように変動パターンに基づいて

て特別図柄と特典図柄がほぼ同時に図柄変動を開始する（図18のステップS234）。その後に特別図柄でリーチになると、図19（B）に示すように左図柄570と右図柄574が停止する（図18のステップS236）。図19（B）の例では、中段の左図柄570と右図柄574がともに数字の図柄「7」で一致しているため、『リーチ』という文字とともにリーチライン576が表示されている。その後、中図柄572が停止して図19（C）に示すように中段の横一列に同じ図柄「7」が揃ったため、特別図柄による抽選結果は「大当たり」である。この間も特典図柄は変動し続け、その後に停止する。ここで、特別図柄と特典図柄は図20（A）に示すように、特別図柄578（左図柄570、中図柄572、右図柄574）と特典図柄580とは特別図柄表示器512に対して前景と背景の関係にある。そのため、遊技者等が特別図柄表示器512の正面から特別図柄578と特典図柄580を見ると、図20（B）に示すように重複して見える。なお、図20（B）の例では図示の関係により特別図柄578と特典図柄580がともに文字の範囲で重複しているため判別しにくいが、実際のパチンコ機500では特別図柄578と特典図柄580の色彩や模様等を変えることによって容易に区別できるようになっている。

【0065】そして、特別図柄による抽選結果が「大当たり」であって特典図柄も「大当たり」と表示されると、遊技者に大当たり遊技の特典を与える（図17のステップS2201）。こうして遊技者は前景図柄と背景図柄の組み合わせによって特典を獲得できるかもしれないという期待感を持って遊技することができる。また、特別図柄表示器512に前景図柄と背景図柄を重複して表示したので、この重複して表示された部位を見れば遊技者は特典が与えられるか否かを簡単に判別できる。なお、特別図柄による抽選結果が「大当たり」であって特典図柄が「はずれ」と表示された場合には、遊技者に大当たり遊技の特典を与えない。逆に、特別図柄による抽選結果が「はずれ」であっても特典図柄が「大当たり」の文字が表示された場合には、遊技者に大当たり遊技の特典を与える。さらに、特典図柄が「確変大当たり」の文字が表示された場合には、遊技者に確変大当たりの特典を与える。そして、特別図柄による抽選結果が「大当たり」なったときと、特典図柄が「大当たり」の文字が表示されたときと別個に対応する特典を遊技者に与えてもよい。

【0066】上記実施の形態2によれば、以下に示す効果を得ることができる。

（1）請求項4に対応し、特別図柄578（前景図柄）と特典図柄580（背景図柄）の組み合わせが変動後に特定図柄の組み合わせで停止すると遊技者に特典を与える（図17のステップS2201）。そのため、遊技者は特別図柄578と特典図柄580の組み合わせによって特典を獲得できるかもしれないという期待感を持って遊

技することができる。

（2）請求項5に対応し、特別図柄578と特典図柄580を重複して特別図柄表示器512（表示部）に表示する（図20参照）。このとき特別図柄578と特典図柄580の組み合わせが停止図柄の組み合わせになったか否かは、重複して表示された部位（隠頭）を見れば分かる。よって、遊技者は当該部位を見るだけで特典が与えられるか否かを簡単に判別することができる。

【0067】なお、上記実施の形態2では、前景図柄と

特別図柄を用い、背景図柄として特典図柄を用いた。

この形態に代えて、以下に示す形態で実施してもよ

い。

（1）前景図柄として特典図柄を用い、背景図柄として特別図柄を用いてもよい。この場合でも、特典図柄にかかわらず、遊技者は特別図柄によって特典を獲得できるかもしれないという期待感を持って遊技することができる。

（2）前景図柄および背景図柄の両方に特別図柄を用いてよい。この場合には請求項2に対応し、前景図柄としての特典図柄がどうなったかにかかわらず、背景図柄としての特典図柄によって特典が与えられる可能性がある。そのため、遊技者は背景図柄としての特典図柄によって特典を獲得できるかもしれないという期待感を持って遊技することができる。このことは、前景図柄および背景図柄の両方に特典図柄を用いた場合でも同様である。

【0068】〔他の実施の形態〕上述したパチンコ機10、500（遊技機）において、他の部分の構造、形態、配置、個数および動作条件等については、上記実施の形態に限定されるものでない。例えば、上記実施の形態を応用した次の各形態を実施することもできる。

（1）上記各実施の形態では、パチンコ機10、500に本発明を適用した。この形態に代えて、パチンコ機以外の他の遊技機（例えばパチスロ機、アレンジボーリング機、雀球遊技機、テレビゲーム機）等であって前景図柄と背景図柄を表示可能な表示部を備えたものにも同様に本発明を適用することができる。当該他の遊技機であっても、遊技者は前景図柄だけでなく背景図柄についても特典を期待する期待感を持って遊技することができる。

【0069】（2）上記実施の形態1では前景図柄に普通図柄を、背景図柄に特別図柄を用いた。同様に実施の形態2では前景図柄に特別図柄を、背景図柄に特典図柄を用いた。この形態に代えて、所定条件が成立したり、あるいは遊技者の意思を検出すると前景図柄および／または背景図柄に用いる図柄を変えられるように構成してもよい。所定条件の成立としては、例えば変動後に前景図柄および／または背景図柄が所定図柄で停止したときや、大当たり遊技中に所定領域（図柄交換始動ルーチン第1種始動ループなど）にパチンコ球が入賞／通過したとき等が該当する。遊技者の意思を検出する手段とし

ては、例えば操作ボタン50、538に限らず、接触センサ（例えばスイッチ、タッチパネル、圧力センサ等）のみならず、非接触センサ（例えば光センサや赤外線センサ等）、あるいは認識システム（音声認識システム、画像認識システム等）などが該当する。前景図柄や背景図柄に用いる図柄を変えられるようにすれば特典を獲得できるかもしれないという期待を持てる図柄が変わるので、遊戯者の期待感も高まる。

【0070】(3) 実施の形態1ではバチコ横10では図柄変動始動口6に、実施の形態2では第1種始動口520や下部始動口558にそれぞれバチコ球が入賞したときを所要条件の成立とした（図4のステップS10、図17のステップS200）。この形態に代えて（あるいは加えて）、遊戯機の種類、日時、遊戯状態等に応じて高確率中や、時短中、保留球数が上限値に達したとき（いわゆる満タン中）、遊戯技が所定領域に入賞または通過すること、大当たり遊戯中、大当たり遊戯終了後の一定期間、開閉部材（入賞口の蓋や羽根、いわゆるチューリップ等の可動翼片等）が開いているとき等を所要条件の成立としてもよい。こうすれば、背景図柄の変動と停止が行われる機会も増えるので、特典を獲得できるかもしれないという遊戯者の期待感も高まる。

【0071】(4) 実施の形態1ではバチコ横10では図柄変動始動口6にバチコ球が入賞すると、第1抽選に相当する普通図柄用変動表示処理（図6参照）および第2抽選に相当する特別変動用変動表示処理（図7参照）を実行した。同様に、実施の形態2では第1種始動口520や下部始動口558にそれぞれバチコ球が入賞すると、第1抽選および第2抽選に相当する変動表示処理（図18参照）を実行した。この形態に代えて（あるいは加えて）、異なる所要条件の成立に応じて（入賞または通過する始動口やゲート等を異ならせて）、対応する変動表示処理を実行してもよい。例えば実施の形態1では図柄変動始動口6とは別個の図柄変動始動口を設けて、図柄変動始動口6にバチコ球が入賞すると普通図柄用変動表示処理を実行し、別個の図柄変動始動口にバチコ球が入賞すると特別変動用変動表示処理を実行する。この場合であっても、遊戯者は前景図柄だけでなく背景図柄についても特典を期待する期待感を持って遊戯することができる。

【0072】(5) 上記実施の形態1では複数の特別図柄（左図柄90、中図柄92、右図柄94）を、実施の形態2では一つの特典図柄580をそれぞれ背景図柄として用いた（図13、図20参照）。この形態に代えて、実施の形態1で一つの特別図柄を、実施の形態2で複数の特別図柄をそれぞれ用いてよい。この場合であっても各実施の形態と同様の効果を得ることができる。このことは、背景図柄を他の形態（普通図柄や装飾図柄等）とした場合でも同様である。また、背景図柄と組み合わせになる前景図柄についても同様である。

【0073】(6) 上記実施の形態2では、特別図柄578（前景図柄）と特典図柄580（背景図柄）の組み合わせが変動後に特定図柄の組み合わせで停止すると遊戯者に特典を与えた（図17のステップS220）。すなわち図20（A）に示すように、2階層に前後してそれぞれ表示された図柄の組み合わせで特定図柄の組み合わせとなつたときに遊戯者に特典を与えてよい。さらには、遊戯状態に応じて階層数を変えたり、当該階層数に応じて特典の大きさを変えるなどよい。こうすれば図柄の組み合わせセンサリエーションが広がる。

【0074】(7) 上記各実施の形態では、前景図柄と背景図柄を重層して表示したが（図13、図20参照）、前景図柄と背景図柄を交互に表示したり、重層しないように並べて表示してもよい。これらは表示様態であっても、遊戯者は前景図柄と背景図柄を容易に認識し、特典が与えられるか否かを簡単に判別できる場合がある。このことは上記（6）において複数階層したときでも同様である。ここで、普通図柄（前景図柄）と特別図柄（背景図柄）を重層しないで並べて表示するについて、実施の形態1と同様の符号を用いた図21を参照しながら説明する。図21（A）と図21（B）にはいずれも斜視投影法や透視画法等によって遠近感が分かれるように図柄や図柄表示器22で表示されている。図21（A）の例ではキャラクタが絵画を鑑賞する様子をイメージしたものであり、前方側には後ろ向きで横一列に並ぶ熊を模した普通図柄（左図柄80、中図柄82、右図柄84）を表示し、後方側には壁に掲げて並ぶ絵画を模した特別図柄（左図柄90、中図柄92、右図柄94）を表示する。図21（B）の例では雄大な自然の中で行われる自動車ラリーをイメージしたものであり、前方側には横一列に並ぶ自動車を模した普通図柄を表示し、後方側には空に浮かぶ雲を模した特別図柄を表示する。図21（A）と図21（B）に示す普通図柄および特別図柄は、図柄の前後を視覚的に認識することができる。すなわち図柄表示器22を見た者は、表示領域内の前方側に位置する普通図柄を前景図柄と認識し、後方側に位置する特別図柄を背景図柄と認識する。このように、遠近感のある画法によって図柄を表示することにより、前景図柄と背景図柄を識別することができる。したがって、普通図柄（前景図柄）と特別図柄（背景図柄）を重層しないで並べて表示しても、上記各実施の形態と同様の効果を得ることができる。

【0075】(8) 上記実施の形態では、メイン制御基板100から一画面ごとのデータ（例えばコマンドブロック300）を表示制御基板200に表示する回路を繰り返すことによって、図柄表示パターンに基づく図柄変動等を行うバチコ横10に本発明を適用した（図6、

図7等を参照)。この形態に代えて、図柄変動等を行うごとにメイン制御基板100から図柄表示パターンのデータを表示制御基板200に1回だけ伝達するバチンコ機に本発明を適用することも可能である。遊技者が操作ボタン50を操作したとき、メイン制御基板100は図柄表示パターンのデータを表示制御基板200に再び1回だけ伝達して図柄変動等を続ける。すなわち遊技者が操作ボタン50を操作した時点で新たな図柄変動等を始める。この場合、メイン制御基板100から表示制御基板200に伝達するデータ量は一画面ごとから図柄表示パターンごとに大幅に少なくななる。よって、メイン制御基板100に必要なプログラム等の設計工数を大幅に減らすことができるので、バチンコ機のコストも低減することができる。また、遊技者の意思で希望するときに新たな図柄変動等が始まるので、特典を期待する期待感をさらに維持できる。

【0076】

【発明の効果】本発明によれば、遊技者は前景図柄だけでなく背景図柄についても特典を期待する期待感を持って遊技することができる。

【図面の簡単な説明】

【図1】本発明の概要を模式的に示す図である。

【図2】第1種バチンコ機の外観を示す正面図である。

【図3】メイン制御基板と表示制御基板の接続構成を示すブロック図である。

【図4】始動口処理の内容を示すフローチャートである。

【図5】図柄変動処理の内容を示すフローチャートである。

【図6】普通図柄用変動表示処理の内容を示すフローチャートである。

【図7】特別図柄用変動表示処理の内容を示すフローチャートである。

【図8】特典実行処理の内容を示すフローチャートである。

【図9】コマンドブロックの構成例を示すブロック図である。

【図10】図柄表示処理の内容を示すフローチャートである。

【図11】特別図柄と普通図柄の配列構成例を示す図である。

【図12】図柄表示器の表示例を示す図である。

【図13】図13に続く図柄表示器の表示例を示す図である。

【図14】第1種バチンコ機の外観を示す正面図である。

【図15】メイン制御基板と表示制御基板の接続構成を示すブロック図である。

【図16】第1種始動口処理の内容を示すフローチャートである。

【図17】図柄変動処理の内容を示すフローチャートである。

【図18】変動表示処理の内容を示すフローチャートである。

【図19】特別図柄表示器の表示例を示す図である。

【図20】特別図柄表示器の表示例を示す図である。

【図21】特別図柄表示器の表示例を示す図である。

【符号の説明】

2 遊技制御部

4 表示制御部

6 表示部

10 バチンコ機(遊技機)

22 図柄表示器(表示部)

64 始動口センサ

66 図柄変動始動口

80, 82, 84 普通図柄(前景図柄)

90, 92, 94 特別図柄(背景図柄)

100 メイン制御基板(遊技制御部)

200 表示制御基板(表示制御部)

500 バチンコ機(遊技機)

512 特別図柄表示器(表示部)

520 第1種始動口

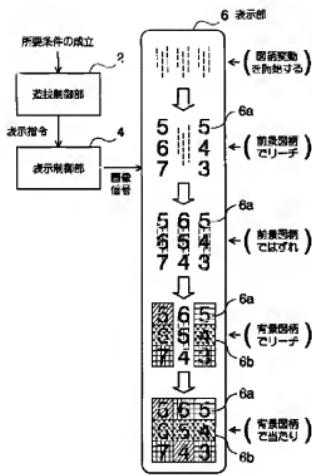
550, 556 始動口センサ

558 下部始動口

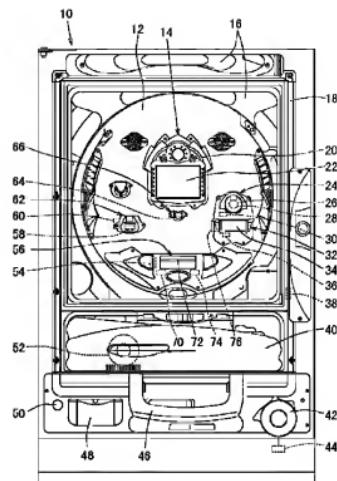
570, 572, 574 特別図柄(前景図柄)

580 特典図柄(背景図柄)

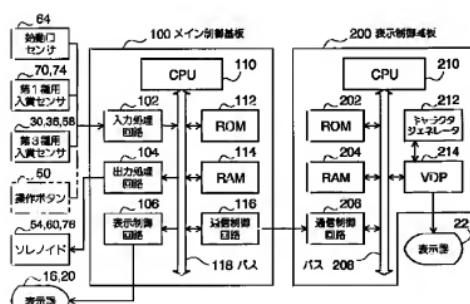
【図1】



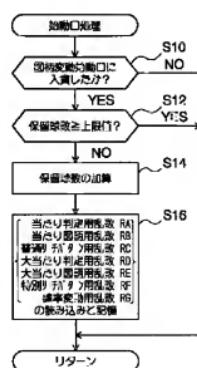
【図2】



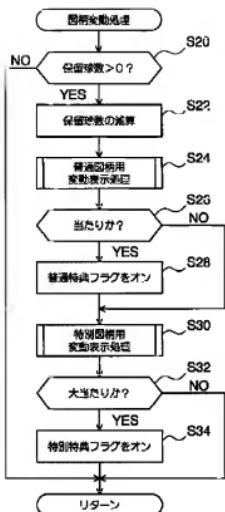
【図3】



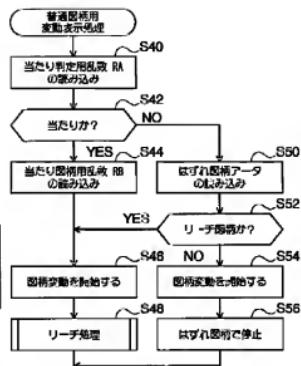
【図4】



【図5】



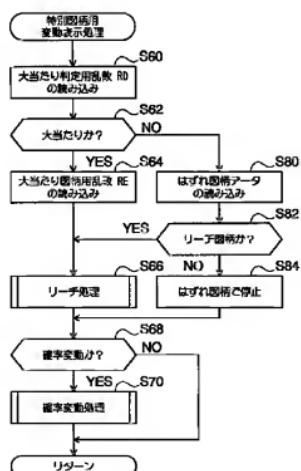
【図6】



【図16】



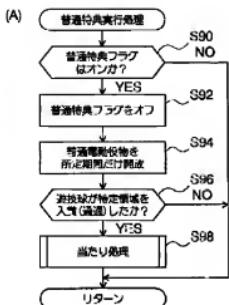
【图7】



〔図17〕



【図8】



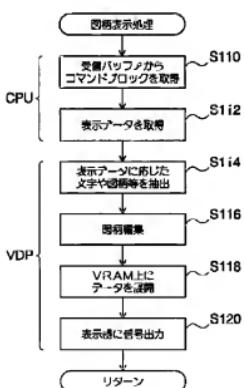
(B)

```

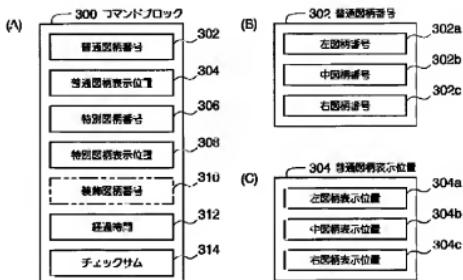
graph TD
    A[特別特典実行処理] --> B{特別特典フラグ  
はオンか?}
    B -- YES --> C[特別特典フラグをオフ]
    C --> D[大当たり処理]
    D --> E[リターン]
    B -- NO --> E

```

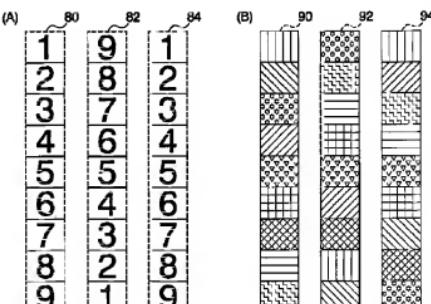
【图10】



【図9】



【图1.1】

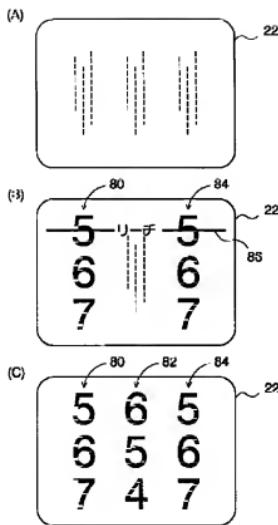


```

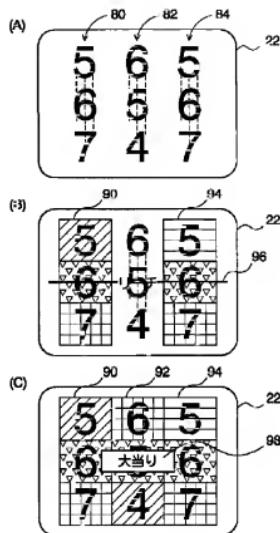
graph TD
    subgraph CPU [CPU]
        S110[受信バッファから  
コマンドブロックを取得] --> S112[表示データを取得]
        S112 --> S114[表示データに応じた  
文字や命令等を抽出]
        S114 --> S116[図柄収集]
        S116 --> S118[VRAM H2  
データを読み取る]
        S118 --> S120[表示用に信号出力]
    end
    subgraph VDP [VDP]
        S118[VRAM H2  
データを読み取る]
        S120[表示用に信号出力]
    end

```

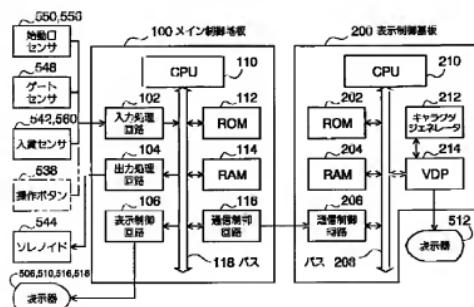
【図1.2】



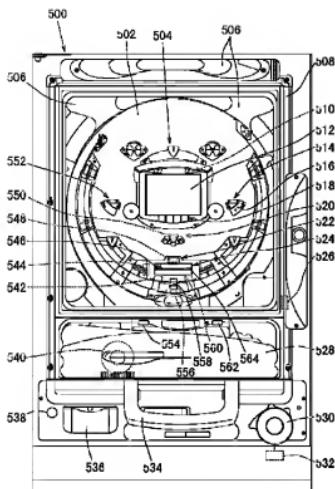
【図1.3】



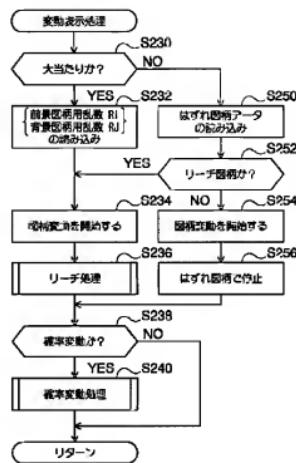
【図1.5】



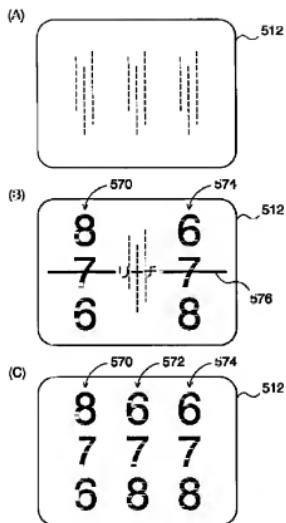
【図14】



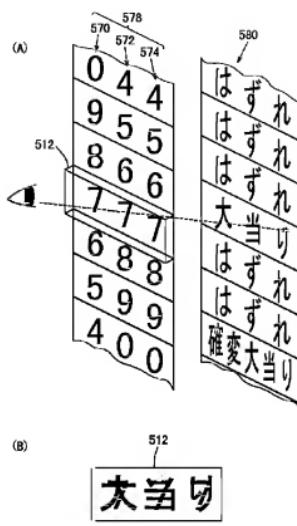
【図18】



【図19】



【図20】



【図21】

